

ThinkLets

Building Blocks for Concerted Collaboration

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ThinkLets: Achieving Predictable, Repeatable Patterns of Group Interaction with Group Support Systems (GSS)

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Abstract

Over the past decade, Group Support Systems (GSS) has shown that, under certain circumstances, teams using GSS can be far more productive than teams who do not use GSS. However, research results are not unequivocal; they have been ambiguous, and sometimes conflicting, which makes it difficult for GSS research to inform GSS practice. One cause of the conflict and ambiguity in GSS research results may be the result of focusing on a less-than-useful level of abstraction: GSS itself. This paper argues that in GSS research, the thinkLet may be a more useful unit of comparison than the GSS. A thinkLet encapsulates three components of a GSS stimulus: The tool, its configuration, and the script. Field experience shows that thinkLets may be used to create repeatable, predictable patterns of thinking among people making an effort toward a goal. To date we have documented about 60 thinkLets that map to seven basic patterns of thinking: Diverge, Converge, Organize, Elaborate, Abstract, Evaluate, and Build Consensus. Each thinkLet creates some unique variation on its basic pattern. By focusing research on thinkLets, rather than GSS, field and laboratory research may be more controllable, more replicable, and better able to inform GSS development and use.

Introduction

More than a decade of research has shown that under certain circumstances, teams using Group Support Systems (GSS) can save as much as 50% of their labor hours, and can cut their project cycle times by up to 90% [Grohowski, et al., 1990; Post, 1993; Vreede,

forthcoming]. Under the right conditions, teams using GSS for ideation can produce many more ideas, and many more good ideas than teams using pen-and-paper methods [Gallupe, et al., 1992; Dennis & Valacich, 1993; Valacich et al., 1994]

And yet, in the lab and in the field, GSS results have been mixed and ambiguous. Fjermestad and Hiltz conducted an exhaustive review of 200 published experiments and reported that of the hypotheses posed in these studies, 628 yielded no effect for GSS, 158 found GSS use to be superior to conventional practices in some way, and 164 found GSS use to be inferior to standard practices in some way [Fjermestad & Hiltz, 1998-99]. In a subsequent exhaustive review of published GSS field research, they reported that GSS use made a positive difference in 47 of 54 field studies, but no so in the other 7 cases. [Fjermestad & Hiltz, forthcoming].

Some portion of the ambiguity in GSS research results may be attributed to the inevitable threats to validity that can plague any research – uncontrollable environmental factors, lack of statistical power, and so on. But even accounting for those factors, the results of GSS have been decidedly confused, to the extent that sometimes even the same authors must sometimes report conflicting results [Gallupe, et al, 1992; Pinsonneault et al. 1999].

Conflicting results in GSS research mean that it is difficult for GSS research to inform GSS practice. GSS practitioners must look to research for guidelines on system design and implementation, collaborative process and methodologies, etc. It is not sufficient for researchers to declare that GSS seems to lead to higher productivity. Researchers have a real responsibility to make it clear how to transfer experiences from the research arena into the organizational arena. In this paper we argue that thinkLets may serve to facilitate that transfer, and stimulate the

heretofore relatively slow transition of GSS from Academia to the workplace.

Conflicting results may also cast a pall over the academic rigor and reputation of the GSS research community. Finding a way to resolve these conflicts and to produce predictable, repeatable results could do much to stimulate GSS research, and redeem the reputation of the GSS research community.

In this paper, we argue that one cause of the conflict and ambiguity in GSS research results may be the result of focusing on a less-than-useful level of abstraction: the GSS. GSS as a class of technologies cannot account for the many varied results in the literature. We offer the thinkLet as different focus for GSS research, and argue that studies of thinkLets will produce far more predictable, repeatable results, which may eventually allow GSS to be rolled out to the workplace (or not) with unequivocal empirical support.

This paper defines thinkLets, and describes seven basic thinking patterns for which thinkLets have been documented. It explains the three components of a thinkLet, and discusses the value of thinkLets as a pattern language for reasoning toward a goal. It offers reflections on the implications of thinkLets, and concludes with a call to action for the GSS research community.

ThinkLets and Patterns of Thinking

A thinkLet¹ is the smallest unit of intellectual capital required to create one repeatable, predictable pattern of thinking among people working toward a goal. In order to achieve a goal, people must move through a reasoning process. To move through a reasoning process, people must engage in a sequence of basic patterns of thinking. To date, we have identified seven such patterns:

- **Diverge** – move from having fewer concepts to having more concepts
- **Converge** – move from having many concepts to focusing on a few concepts deemed worthy of further attention
- **Organize** – move from less understanding to more understanding of the relationships among concepts
- **Elaborate** – move from having concepts expressed in less detail to having concepts expressed in more detail.
- **Abstract** – move from having concepts expressed in more detail to having concepts expressed in less detail.

¹ Before it was called, “thinkLet,” this concept had other, less apt labels – Recipe, Technique, Reasoning Module. The term, “thinkLet” was coined by David Tobey in March of 2000 as we struggled for an expressive label. “It’s like an applet,” he said, “but it’s a thinkLet.”

- **Evaluate** – move from less understanding of the value of concepts for achieving a goal to more understanding of the value of concepts for achieving a goal.
- **Build Consensus**² – Move from having less agreement among stakeholders to having more agreement among stakeholders.

A thinkLet is a parsimonious prescription for creating some variation on one of these patterns of thinking among people working toward a goal. A thinkLet has three components:

Tool – The specific version of the specific hardware and software technology used to create a pattern of thinking.

Configuration – The specifics of how the hardware and software were configured to create a pattern of interaction.

Script – The sequence of events and instructions given to the group to create the pattern of thinking.

These three components taken together constitute the stimulus that causes the pattern of thinking reported in a GSS research paper. Lacking knowledge of any one of these components, others cannot recreate the stimulus, and so may not be able to reliably recreate the thinking pattern achieved with a GSS. Lacking knowledge of any one of these, a practitioner cannot recreate the stimulus used to produce an effect reported in a research paper.

That each component has an effect on outcomes with GSS can be inferred from the rich body of published GSS literature. Consider each component in turn.

2.1 Tool

Many papers on GSS (AKA GDSS, CMC and EMS) draw sweeping conclusions about the effects of the entire category of technology, making such statements as:

“People using GDSS produce significantly more non-redundant ideas than people using traditional meeting methods.”

“Subjects who used EMS generated more ideas of higher quality than did subjects who did not use EMS.”

“Teams that used EMS completed their projects in less than half the [labor hours] required by teams that did not use EMS.”

Such statements turn out to be problematic for those attempting to use or reproduce the published results because GSS is not a unitary thing. Any given GSS is not

²There are many words in the English Language that mean, “To be in agreement.” However, we have not found a verb that means, “To Move Toward Consensus.” We considered coining such a word -- Consensate, Harminate, Agreeamate—but it seemed likely that such words would obscure, rather than communicate our meaning. If you can think of an appropriate verb for this concept, please notify the authors.

a single tool, but a collection of tools that differ widely from one another. One could not expect to obtain the same results with an electronic brainstorming tool as one obtains with a group outline or an electronic voting tool. Therefore, without knowing which tool a group used, one cannot reproduce the group's results.

Further, GSS's are not a single system, but a category of systems, and the systems in that category differ widely. For example, the electronic brainstorming tool in some systems might require that all users contribute ideas to the same electronic page, while the electronic brainstorming tool in another system might require that all participants contribute to different pages, and that they swap the pages among themselves. The literature is replete with findings that differences among tools can cause differences in results:

- Dennis, et al. [1997] demonstrated that people brainstorming in multiple dialogs tended to out-perform people contributing to a single dialog.
- Easton, et al. [1990] found that an electronic conversation tool produced better results than an electronic brainstorming tool for convergent tasks, but the reverse was true for divergent tasks.
- Hollingshead, McGrath, & O'Connor [1993] showed that groups using one version of a CMC outperformed groups using a different version of the same CMC.

Thus, one must conclude that differences in technology can produce differences in outcome, and one must know the exact tool that was used in order to reproduce the results of others. However, just knowing which tool was used is not sufficient to assure replication of results.

2.2 Configuration

Some GSS tools have many possible configurations, and different configurations may have different effects on group outcomes. The GroupSystems Electronic Brainstorming Tool, for example, has more than 20 independently configurable features, for a total of 1,048,576 possible combinations. Those features are configurable precisely to allow teams to change their patterns of thinking and interaction. Just one example is the feature that allows teams either to contribute anonymously or to have every contribution tagged with a user's name. There are a host of papers in the GSS literature demonstrating that anonymous groups perform differently than identified groups [Cooper, et al., 1998; Easton, et al., 1990; Jessup, Connolly, and Gallagher, 1990].

Thus, in order to understand how a group achieved its results, one must know exactly which tool was

used, and exactly how that tool was configured. However, knowing both the tool and its configuration is still not sufficient if the goal is to create a repeatable, predictable pattern of thinking and interaction among the members of a team.

2.3 Script

The very same GSS tool configured in the very same way can produce very different patterns of thought, depending on the script in which it is embedded. A script is the sequence of events and prompts given to a group as they use a GSS tool. There are several robust illustrations in the GSS literature of the powerful differences in group dynamics that can be produced by changing a script.

- Shepherd, et al. [1995] used a set of tightly scripted treatments to assess the effects of social comparison on brainstorming productivity. However, in one treatment, one of the three facilitators on the project changed just two phrases in a 10-page script. Instead of saying, "performing above average," he said, "kicking butt." Instead of saying, "performing below average" he said "brain-dead." This slight variation produced laughter among the subjects, which raised the salience of the social comparison, which caused a double-digit improvement in their brainstorming productivity. When the researchers discovered the script anomaly, the facilitators reversed roles. All facilitators were able to produce double-digit improvements by assuming a jocular tone when making the social comparison to the group.
- Connolly, Jessup, and Valacich [1990] demonstrated that using a script with a critical evaluative tone caused anonymous GSS users to produce more ideas of higher quality than did those using a script with a positive evaluative tone.
- Dennis, et al [1996] showed that dividing a compound brainstorming prompt into separate sub-prompts caused a group to produce more ideas of higher quality and creativity.

2.4 ThinkLets Summary

Thus, by knowing the tool, the configuration, and the script, one may be able to recreate the stimulus used by others to produce a pattern of thinking. Lacking knowledge of any one of these components, it may not be possible to reproduce results achieved by others with a GSS. The tool, the configuration, and the script constitute the thinkLet.

We have documented and field-tested approximately sixty thinkLets.

ThinkLets as a Pattern Language

Because field experience suggests that thinkLets tend to create repeatable patterns of thought among people working toward a goal, and because thinkLets have names,

and because the components of a thinkLet may be communicated, thinkLets may serve a useful pattern language for reasoning toward a goal.

Tables 1 and 2 present the documentation for two thinkLets – LeafHopper, a divergence thinkLet; and Rich

Table 1.

LeafHopper: A Divergence ThinkLet

Choose this thinkLet...

- ... when you know in advance that the team must brainstorm on several topics at once.
- ... when different participants will have different levels of interest or expertise in the different topics.
- ... when it is not important to assure that every participant contributes to every topic.

Do not choose this thinkLet...

- ... when it is important to assure that each person addresses each topic.

Overview

Participants start with an electronic list of several discussion topics. Each item on the list links to an instance of a simultaneous comment window. Each participant hops among the topics to contribute as dictated by interest and expertise.

Inputs: A list of topics that must be addressed by the team.

Outputs: A set of comments organized by discussion topic

How to use LeafHopper

Tool

GroupSystems Topic Commenter

Configuration

1. Participants may contribute comments under each topic.
2. Participants may not contribute new topics
3. Contributions will be anonymous
4. Create one topic card for each brainstorming question in Topic Commenter or one of the other list/comment tools.

Script

5. Explain the topics to the group and verify that the participants understand them
6. Explain the kinds of ideas that the group must contribute
7. Explain how to open the comment window under each discussion item.
8. Say this:
 - a. Start working on the topics in which you have the most interest or the most expertise. Then, if you have time, move to each of the other topics to read and comment on the contributions of others.
 - b. You may not have time to work on every topic, so work first on the topics that are most important to you.

Insights on LeafHopper

Sometimes your team must discuss several topics more or less simultaneously. For example, we have a colleague who worked with a series of groups on resolving pollution issues. He discovered that he got significantly more value from a group by posing three simultaneous questions in a LeafHopper...

What can we do about air pollution?

What can we do about water pollution?

What can we do about ground pollution?

...than he got with the FreeBrainstorming thinkLet using one question with three parts...

What can we do about air, water, and ground pollution?

He also got more value from the groups by posing the three questions simultaneously than he did by posing them one at a time with a DealersChoice thinkLet. Using Leaf Hopper, people could hop between the questions as they were inspired.

With LeafHopper it is not necessarily the case that every participant will see every topic. Sometimes that is exactly why you use it. If, however, you want to assure that every participant contributes to every topic, choose a different thinkLet.

LeafHopper Example

We once worked with a commercial software development team that had 12 tricky issues to resolve. They needed input from engineers, customers, product managers, developers, users, and several other success-critical stakeholder groups. They discovered a rare opportunity when all the high-powered stakeholders were to be in the same place at the same time, and managed to schedule a meeting. Then they realized that although they needed input from all the stakeholders, any given stakeholders only had an interest in about 1/3 of the issues. This meant that no matter what topic was being discussed, 2/3 of these high-powered participants would be sitting around bored. It's a bad thing to bore high-powered participants, but unfortunately, the mix of issues and interests was such that they could not simply schedule sessions around each topic. We chose to use a LeafHopper to overcome this problem. The development team posted the issues to the GroupSystems Topic Commenter. They asked the participants to work first on the topics in which they had the most at stake, and on which they had the most expertise. The participants proposed options for resolving each issue, and then argued the pros and cons of the proposals. The whole discussion of 12 topics took just over an hour and a half. In a subsequent discussion, the group reached consensus on seven of the outstanding issues and assign action items for collecting information on the other five. The whole group was fully engaged in the activity throughout the event. Said one participant, "We just did a week's work in three-and-a-half hours."

What's in a Name?

A leafhopper is a small insect that is something like a grasshopper or a cricket. It hops from leaf to leaf eating what it wants. then moving

Relations, an organization thinkLet. Note that the documentation provides:

- A memorable name that evokes the dynamics created by the thinkLet
- Criteria for deciding when and when not to use a thinkLet
- The Tool, Configuration, and Script of the thinkLet
- Insights and guidance based on field experience
- A success story to help clarify the circumstances under which the thinkLet might be useful.
- An explanation of the name, to make it easier to remember both the name and the thinkLet

Even within a given category, different thinkLets produce different variations on the same basic thinking patterns. Consider, for example, Free Brainstorming and Comparative Brainstorming, two thinkLets that use the same tool and configuration, but different scripts to produce different patterns of divergence. Both thinkLets use the GroupSystems Electronic Brainstorming tool in its default configuration, which provides a separate electronic comment page for each participant. Participants may contribute one idea to a page, then they must send the page back to the group. The system randomly brings back a different page that contains ideas contributed by others. Each page gradually accretes a conversation as it moves from person to person.

With Free Brainstorming the participants are told:

...The system will bring you a new page with ideas contributed by somebody else. You may respond to the ideas of others in one of three ways:

You may argue with them

You may elaborate on them by adding detail

You may ignore them and contribute a completely new idea.

As soon as you finish one idea, you will send the page back to the group and get a different page back. The goal is to produce as many different ideas as we can in a short time.

People respond to this thinkLet by moving quickly to the boundaries of their problem space and producing a number of creative ideas, but the conversation also tends to be filled with noise and digression. The group must then use another thinkLet to sift the gold nuggets from the sand.

With Comparative Brainstorming, the participants know in advance the criteria for judging the quality of good idea. For example, in a competitive manufacturing setting, good solutions might be those that are more efficient, higher quality, and build customer loyalty.

These criteria become prompts in the script, which run something like this:

...Each of you has a different electronic page in front of you. Everybody please enter the single best solution that occurs to you, then cross your arms and wait for your next instruction.

Now swap pages. You should see a page with one idea on it contributed by somebody else.

Give me a new solution that will be more likely to cut costs than the idea in front of you.

Now swap pages again.

Give me a new solution that is likely to result in better customer relationships than either of the two you now see on the screen.

Now swap pages.

Give me a solution that is more likely to shorten our production cycles than any of the ideas you see...

People respond to this thinkLet by producing fewer solutions that conform to the known criteria for idea quality. They do not tend to explore the boundaries of their problem space, but they arrive at high quality solutions very quickly, and there is very little noise or digression.

Thus, when time is of the essence and the criteria for a good outcome are known, one might choose Comparative Brainstorming, but when creativity is more important than speed, one might choose Free Brainstorming. Each of these two thinkLets creates its own variation of the divergence pattern; each has its own personality.

A thinkLet called Point-Counterpoint uses yet another script based on the same tool and configuration to create a consensus-building pattern instead of a divergence pattern. It can be used to help break an impasse in a badly conflicted or polarized group. It runs something like this:

...Each of you has a different electronic page in front of you. Everybody please enter your single strongest argument in favor of your position, then cross your arms and wait for your next instruction.

Now swap pages. You should see a page on the screen with an argument contributed by some other person.

Whatever the argument you see on your screen, demolish it. Make as strong an argument against it as you can, whether you agree with it or not.

Now swap pages.

You should now see two arguments on the screen: one that argues very strongly in favor of some position, and a mutually exclusive argument that counters the first. Your task is to write an argument that bridges those two mutually exclusive positions.

Now swap pages. Let's talk about what you see on your screens.

Often when people participate in a Point-Counterpoint, their initial arguments are diverse, starting from many different premises. Likewise, the counter arguments also tend to be diverse. However, when they begin to grapple with bridging arguments, it is not uncommon for many participants to find the same bridging argument.

The mechanics of the three preceding thinkLets are similar, but the pattern of thinking produced by each is unique. When one becomes familiar with the thinkLets and their effects on thinking patterns, one can speak of large, subtle, and powerful GSS process design issues

using very few words. For example, we developed an action planning methodology that took more than 100 pages to document in detail. A cheat-sheet summary of the process took 8 pages. However, one familiar the thinkLets involved could recreate the same action planning process on the basis of the following paragraph:

We will start with a Free Brainstorm on the question, "What are the issues upon which this group must take action?" We'll FastFocus a list of Issues for Action, then we'll prioritize them with a StrawPoll. We Crowbar the polling results to surface un-challenged assumptions and unshared information. Then, we'll Could-Be-Should-Be each Issue in order of priority with the Could-Be question, "What could we do to resolve this issue?" and a

Table2.

RichRelations: An Organization ThinkLet

Contributed by Bill Becker, U.S. Department of Defense

Choose this thinkLet...

- ... to create a set of categories for organizing brainstorming comments
- ... after any divergence thinkLet and before a thinkLet where ideas will be sorted into categories.

Do not choose this thinkLet...

- ... to converge on key issues. This thinkLet helps people organize many brainstorming comments into categories, but it does not cause them to converge on a few ideas that are worthy of further attention

Overview

Participants browse their brainstorming comments and find two items that are related in some way. They articulate the relationship between the two items, and if the group agrees, that relationship becomes the name of a category.

Inputs: *Comments from a brainstorming activity*

Outputs: *A set of category names for summarizing or organizing the contents of a brainstorming activity*

How to Use Rich Relations

Tool:

1. GroupSystems Categorizer

Configuration:

1. Post the brainstorming comments as list items in one bucket (category) of the Categorizer tool.
2. Display the bucket (category) column
3. Prepare to add a new bucket (category).

Script:

1. Say this:
 - a. *"Please read through the comments on your screen. If you find two more comments that are related in some way, tell me how they are related."*
2. Add a new bucket (category) with the relationship as a label.
3. Continue the process until participants can find no more relationships.

Insights on RichRelations

This little thinkLet is nearly self-working magic. People just pipe up with useful category names with very little additional prompting. If you ever find yourself with too many category names for comfort, no problem. Just do a RichRelations on the buckets themselves: *"Please find two or more buckets that are related in some way, and tell me their relationship."* The team will propose a new category that will subsume the originals. Voila! Your list of categories is shorter. In practice,

RichRelations Example

Many stakeholders in the U.S. Department of Defense were asked to brainstorm ideas for a new, unified system for managing hazardous waste. The stakeholders worked in groups of about 20 people. Each group brainstormed features and functions for the new system, then used RichRelations, followed by an organizing thinkLet, to classify their contributions before evaluating them.

What's in a Name?

This thinkLet is called RichRelations because when one person strikes it rich, say, by winning the lottery, other people suddenly find it important to explain their familial ties to their newly rich relation. In like fashion, with this thinkLet people

Should-Be that produces action items with the following elements: Action, Leader, Deliverable, Deadline, Deliver-To, Measures of Merit.

Reflections on ThinkLets

Although the thinkLet as an identifiable concept is fairly new to the GSS research community, the thinkLets themselves have been around for a long time as tacit knowledge in the minds of GSS researchers and facilitators. Indeed, all of the GSS facilitators whom we have interviewed have had a dozen or so favored thinkLets in their repertoires, reliable ways to create predictable patterns in the groups with which they work. Sometimes they had names for their thinkLets, other times they simply executed them without explaining them, even to themselves. We have elicited thinkLets from facilitators with questions like,

What do you do when you've got a group that's badly polarized, and they just can't move forward?

What do you do when you want to encourage people to break out of old thinking ruts to find new ideas?

By formalizing the thinkLets concept, and by naming and documenting the thinkLets, the GSS research community may be able to:

- Create a common pool of useful thinkLets from what are now isolated puddles of valuable intellectual capital.

- Theorize about the underlying propositions of cause-and-effect that play out during goal attainment in an effort to explain why the known thinkLets work as they do.

- Provide a solid basis for analysis and comparison of field and laboratory studies GSS research. Field studies become far more controllable if their GSS interventions are scripted and documented, and if measures are taken to determine whether the expected patterns of thinking do, in fact, emerge in GSS intervention. Laboratory studies become far more replicable when all components of the thinkLet stimulus are controlled and reported.

- Design new, more efficient and effective thinkLets based on theoretical foundations and empirical results of thinkLet-based studies.

- Produce new technologies even better suited to creating, sustaining, and then changing patterns of thinking among people working toward a goal.

Four pilot tests with small groups of inexperienced trainees suggest that people who are not facilitators can become effective users of GSS far faster if they learn thinkLets than if they just learn how to run the technology. With most software applications, the important outputs appear on the screen – a document, a spreadsheet, etc. With a GSS, the outputs that appear on the screen are secondary to the patterns of thinking created in the minds of the participants. With a GSS, a beginner

can learn all there is to know about how to make things happen on the screen, and still have no idea about how to use the GSS to move people toward a goal. By focusing beginners on patterns of thinking from the outset, they appear to have a better grasp of the possibilities a GSS presents. They can create useful patterns of thought without having to learn more than is necessary about the details of the technology.

Limitations of ThinkLets Research to Date

A thinkLet is by no means a bulletproof, mechanistic guarantee of repeatable results. As demonstrated in Shepherd, et al (1995), the script component is subtle, and may be difficult to convey. Even with identical scripts, different people may produce different outcomes. (Consider, for example, the effect of casting the actor, Woody Alan, instead of Sean Connery, in the role of James Bond.) There is robust empirical and anecdotal evidence that differences among facilitators can cause differences in outcomes (Dickson, et al., 1996). Nonetheless, a thinkLet provides at least a good approximation, and hundreds of field trials suggest that they can, indeed be used to produce repeatable, reliable results with GSS.

However, good thinkLets still do not guarantee success. There are many other factors that influence GSS outcomes. Fjermestad and Hiltz (1998-99, forthcoming) identified more than 100 independent variables that seem to have an impact on GSS outcomes. Many of these variables addressed some aspect of goal congruence – the degree to which the declared goal of the group is consistent with the private interests of its members. Others addressed issues ranging from the domain expertise of the participants to information access, to the configuration of the physical workplace. None of these things can be captured in advance as a component of a thinkLet. Nonetheless, when wielded with intelligence and discernment, all other things being equal, thinkLets appear to create predictable pattern of interaction.

Although a thinkLet may create a predictable thinking pattern, the user of a thinkLet must assure that the pattern it creates will, in fact, be useful for the task at hand. A divergence thinkLet may block the success people who need and want to converge.

ThinkLets as a Cornerstone for Repeatable Methodologies

A thinkLet isn't a methodology. A thinkLet is a way to create a pattern of thinking; a methodology is a step-by-step way to accomplish a mission critical task like strategic planning or requirements negotiation. In the end, a thinkLet only matters if it can make a difference on some important task.

Just because we can predictably create a pattern of thinking doesn't mean we can create a successful methodology. Much work remains to be done to learn how thinkLets can be combined to create predictable, repeatable success on mission critical tasks.

The law of Requisite Variety (Ashby, 1956) says that a control system will fail unless it can accommodate the amount of variance in the system it purports to control. ThinkLets may be thought of as a control system for patterns of reasoning, and a methodology may be considered a control system for accomplishing a mission critical task. The GSS community faces an interesting challenge to determine the extent to which thinkLets and methodologies built of thinkLets can be packaged and delivered as technology solutions. It is clear that some simple thinkLets have powerful, repeatable effects. Field experience shows that some compound thinkLets can also produce repeatable success. For example, a combination of the Free Brainstorming, FastFocus, and Crowbar thinkLets seems to cause people to surface and challenge assumptions that they had not previously examined. But how far can these predictable thinkLets be combined before the resulting system becomes unstable because they do not accommodate the Law of Requisite Variety? Only experience and research will show.

In order to accomplish a goal, people may move through a series of thinkLets. As people conclude one thinkLet and prepare for another, a number of issues must be addressed. Taken together, these issues may be called a transition. Transition issues may include but are probably not limited to:

- Assuring all participants are in synch with the change in process.
- Copying, moving, archiving, finding, and/or transforming data, information, and knowledge.
- Reconfiguring or switching technologies
- Reconfiguring the physical environment

In the study of how repeatable thinkLets can be mapped into successful methodologies, transition issues may not be trivial. Transitions may require a level of research comparable to that which must be devoted to the thinkLets themselves if GSS researchers are to move GSS, thinkLets, and GSS-supported methodologies into the workplace.

Call to Action

Many existing thinkLets are still embedded in the tacit knowledge of expert GSS users, and as such are unavailable to the GSS community. Much work lies ahead to retrieve, document, and publish these thinkLets so they may become part of the GSS research and practice canon.

Today's thinkLets are parsimonious prescriptions, derived and tested in the field. However, a prescription implies some underlying cause-and-effect phenomenon.

To date, however, little theoretically rigorous study of the cognitive, social, political, and other principals underlying thinkLets has been done. Much research must still be done to explain why these prescriptions work as they do.

Experience in the field shows that certain thinkLets work well time and time again. But little is yet known about which details of a given thinkLet might be causal, and which might be mere superstition. Only rigorous theoretically driven empirical research can tease out an answer to that question.

Many of the classic GSS research papers do not report procedures in sufficient detail to allow a reader to infer the thinkLet that gave rise to the effects. Much of that research should now be revisited and replicated with clearly scripted thinkLets, so we may learn what it is we should have learned from those ground-breaking studies.

Much of the existing GSS literature focuses on divergence – moving from fewer concepts to more concepts. With a few notable exceptions, little has been done to explore ways to effectively and predictably address the other six basic patterns of thinking – converge, organize, elaborate, abstract, evaluate, and build consensus. ThinkLets may provide a way for researchers to come to grips with those patterns as well.

The seven basic thinking patterns have all been defined in terms of movement and change – from fewer ideas to more ideas; from less detail to greater detail; from less agreement to more agreement, and so on. This framing of the categories points the way for empirical measures of thinkLet efficacy. If a thinkLet is to cause convergence, one can measure the degree to which and the speed with which people were able to focus their attention on ideas worthy of further attention. If a thinkLet is to cause the building of consensus, one can use coefficients of concordance to measure the degree of consensus in a group. By focusing on measuring the kind of movement change a thinkLet is meant to induce, researchers can grapple with some important constructs that may have previously been hard to pin down.

Conclusions

Because a thinkLet encapsulates the components of a stimulus used to create a single repeatable, predictable pattern of thinking among people working toward a goal, in GSS research, the thinkLet may be a more useful unit of comparison than the GSS. By focusing on thinkLets instead technologies, GSS researchers may be able to produce more replicable results, and may be able to broaden the scope of GSS research beyond its current focus on divergence, to embrace convergence, organization, elaboration, and so on.

A focus on the thinkLet, rather than on the GSS technology may lead eventually to a fundamental shift in the structure and purpose of the GSS. A GSS is commonly perceived as a collection of useful software tools for

groups making a concerted effort. No existing GSS yet supports directly the capture and delivery of all three components of a thinkLet for the purpose of creating a repeatable pattern of thinking.

The thinkLets described in this paper are small but important examples of the many that are yet to be discovered, documented, published, and tested. Because thinkLets demonstrably create repeatable patterns of thinking, they may provide a window to the cognitive, social, and other mechanisms that come into play as people work toward their goals.

References

- Ashby, W.R., *An Introduction to Cybernetics*, Chapman and Hall, London (1956).
- Cooper, W.H.; Gallupe, R.B.; Pollard, S.; and Cadsby, J. Some liberating effects of anonymous electronic brainstorming. *Small Group Research*, 29(2) 1998, 147-178.
- Dennis, A.R. and Valacich, J.S. Computer Brainstorms: More Heads are better than One. *Journal of Applied Psychology*, 78(1993), 531-537.
- Dennis, A.R., Valacich, J.S., Carte, T.A., Garfield, M.M., Haley, B.J., & Aronson, J.E. Research Report: The effectiveness of multiple dialogs in electronic brainstorming, *Information Systems Research* 8(2), 1997, 203-211
- Easton, G.K.; George, J.F.; Nunamaker, J.F; and Pendergast, M.O. Using two different electronic meeting system tools for the same task: an experimental comparison. *Journal of Management Information Systems*, 7(1), 1990, 85-99.
- Fjermestad, J & Hiltz, S.R. An assessment of Group Support Systems Experimental Research: Methodology and Results. *Journal of Management Information Systems*, 15(e) Winter, 1998-99, 7-150.
- Fjermestad, J. & Hiltz, S.R. A Descriptive Evaluation of Group Support Systems Case and Field Studies. *Journal of Management Information Systems*, forthcoming.
- Gallupe, R.B., Dennis, A.R., Cooper, W.H., Valacich, J.S, Bastianutti, L.M, & Nunamaker Jr., J.F. Electronic brainstorming and group size. *Academy of Management Journal*, 35(2), 1992, 350-369.
- George, J.F.; Easton, G.K.; Nunamaker, J.F.; and North craft, G.B. A study of collaborative group work with and without computer-based support. *Information Systems Research*, 1(4) 1990, 394-415.
- Grohowski, R., McGoff, C., Vogel, D.R., Martz, B., & Nunamaker, J.F. Implementing electronic meeting systems at IBM: lessons learned and success factors. *MIS Quarterly*, 14(4), December 1990, 368-383.
- Hollingshead, A.B.; McGrath, J.E.; O'Connor, K.M. Group task performance and communication technology: a longitudinal study of computer-mediated versus face-to-face groups. *Small Group Research*, 24, 3 (1993), 307-333.
- Jessup, L.M.; Connolly, T.; and Galegher, J. The effects of anonymity on GDSS group process with an idea-generating task. *MIS Quarterly*, 14, 3 (1990), 313-321.
- Pinsonneault, A., Barki, H., Gallupe, R.B., & Hoppen, N. Electronic Brainstorming: The Illusion of Productivity, *Information Systems Research*, 10(2) 1999, 110-133.
- Post, B.Q. A business case framework for group support technology. *Proceedings of the Twenty-Fifth Hawaii International Conference on System Sciences*, 4, (1992), 34-45.
- Post, B.Q. A business case framework for group support technology. *Journal of Management Information Systems*, 9, 3 (1993), 7-26.
- Shepherd, M.M.; Briggs, R.O.; Reinig, B.A; Yen, J.; and Nunamaker, J.F. Social comparison to improve electronic brainstorming: beyond anonymity. *Journal of Management Information Systems*, 12(3), 1996, 155-170.
- Valacich, J.S., Dennis, A.R., and Connolly, T. Idea Generation in Computer Based groups: A New Ending to an Old Story. *Organizational Behavior and Human Decision Processes*, 57 (1994) 448-467.
- Vreede, G.J. De. A Field Study Into the Organizational Application of Group Support Systems, *Journal of Information Technology Cases and Applications*, (Forthcoming).

ThinkLets for divergence – no seeds

FreeBrainstorm

Choose this thinkLet...

- ... to cause the group to diverge quickly from comfortable patterns of thinking, to push them farther and farther afield in search of new ideas.
- ... to eliminate information overload during brainstorming in teams of 6 or more people.
- ... to cause team members with narrow, parochial views quickly to see the big picture, to quickly create a shared vision in a new, heterogeneous team.

Do not choose this thinkLet...

- ... if your group has fewer than 6 members. Consider using OnePage instead.
- ... if you are pushing for depth rather than breadth in the resulting ideas. Consider using ComparativeBrainstorm instead.

Overview

In this thinkLet the team members brainstorm ideas in response to a single question or prompt. The team members are working on separate pages that are circulating among them. They contribute ideas to the pages or reactions to previous ideas.

Inputs

Clear understanding of the purpose for brainstorming.

Outputs

A large set of unstructured brainstorming comments spread across a number of electronic pages.

How to use FreeBrainstorm

Setup

- 1 Create brainstorming pages in Electronic Brainstorming:
 - a One page for each participating team member, plus one extra.
 - b An additional page for each 10 participants.
 - c Examples:
 - i For 6 participants create 7 pages (6 + 1).
 - ii For 10 participants create 12 pages (10 + 1 + 1).
 - iii For 20 participants create 23 pages (20 + 1 + 2).
- 2 Enter the Brainstorming Question into the EBS tool.

Steps

- 1 Say This:
 - a Please click the “Go” button. The system will bring you an empty electronic page.
 - b Each of you now has a different electronic page. You will each start on a different electronic page.
 - c You may each type one idea, up to 400 characters long onto that page. Then you must click the submit button to send the page back to the group.
 - d The system will randomly bring you back a different page. That page may have somebody else’s ideas on it.
 - e When you see a page with somebody else’s ideas on it, you may respond in three ways:
 - i You may agree with an idea by adding detail to it.
 - ii You may argue against an idea.
 - iii You may be inspired to contribute a completely new idea.
 - f You may type exactly one idea on the new page. Then you must send that page *back to the group*. *The system will bring you a new page.*
 - g We will continue swapping pages and submitting ideas (Until you run out of ideas; for X minutes).
 - h Any questions? You may begin.

FreeBrainstorming Insights

This thinkLet is based on GroupSystems’ Electronic Brainstorming tool (EBS). With EBS, each participant starts on a different electronic page. A team member may enter only one idea of up to 400 characters on a page. Then the team member must send the page back to the group. The system automatically retrieves another page at random. The participants build on one another’s ideas as the activity unfolds.

During the first 15 minutes or so of a FreeBrainstorming activity, the participants will mostly ignore the writings of others as they enter their own ideas. Then you will notice a distinct lull in contributions as people begin to read the contributions of others. After about 1 – 3 minutes, the group will be in full swing again, typing away. They typically run out of ideas after 40 minutes to one hour, depending on the task. In rare instances they may run an hour-and-a-half. We’ve seen this happen in requirements negotiation sessions when people were brainstorming their win conditions for a new software system.

When the participants run out of ideas, they don’t stop typing. Instead, they begin to type in humorous remarks. It happens every time. When you hear people starting to chuckle as they read, that’s your cue that it’s time to move on to the next activity. Give the group a one-minute warning, then wrap it up.

The Group Dynamics

People in a FreeBrainstorming activity tend to push very quickly out to the boundaries of their problem space. Unlike every other tool in GroupSystems, in EBS every person starts on a different page, and each page can be seen by only one person at a time. You can think of FreeBrainstorming as a pile of papers in the middle of a table. Each group member grabs one piece of paper, writes one idea on it, and then throws the paper back in the pile and grabs a different paper. It is fast, it's stimulating, and it's fun.

Some very useful group dynamics emerge in FreeBrainstorming having to do with:

- Breadth rather than depth
- Rapid synthesis of the big picture
- Arguing
- Next Steps

Breadth rather than depth. FreeBrainstorming deliberately fragments people's thinking. It prevents them from thinking deeply and pushes them for breadth. Every time they begin one line of thinking, they must throw their page back in the pile and get a new page, which probably contains a different line of thinking. This is a very useful way to encourage people to think outside the box, to be creative. They simply can't tell you everything they know on a subject. They must make a succinct statement and move on.

Arguing. Unlike standard brainstorming, in FreeBrainstorming we encourage people to take shots at each-other's ideas. In a standard brainstorming session that would absolutely shut down the contributions. People don't like to hear their ideas criticized in public. With FreeBrainstorming, though, the contributions are anonymous. Extensive studies in the lab and in the field have shown that people don't take it personally if you argue with an idea they contributed anonymously. When people are allowed to argue as they contribute anonymously, the group comes up with more and better ideas.

Synthesizing the Big Picture. Sometimes, when a diverse group of experts gathers, each takes a narrow, parochial view of the world, and none sees the big picture. When such a team engages in a FreeBrainstorm, it becomes very clear very quickly that the world is a bigger place than any of them had imagined. This is because every new page brings a new perspective. People simply cannot hold on to their limited perspectives. They are driven to a shared vision.

For example, we once worked with a group of news media luminaries who gathered to assist in the realization of a radical new curriculum for the journalism department at a major American university. They were publishers of newspaper chains, producers of network news, leading academics from the information and

technology disciplines, and so on. At the end of a half-hour of FreeBrainstorming, the publisher of 17 newspapers said, "I had no idea this problem was so big. I thought we came here to talk about newspapers, but we're talking about the future of information."

Next Steps. FreeBrainstorming is fast, it's stimulating, and it's fun. However, it is an intensely divergent activity that leaves people feeling a strong need to converge, to gain some sense of closure. If they don't get the chance to converge, they start to feel like they are being railroaded toward an ill-considered conclusion. Most of the time you'll find you want to follow it with one of the convergence thinkLets like FastFocus or BroomWagon.

The Numbers Game

There are some numbers associated with this thinkLet. It might be useful for you to understand why they are set as they are.

The Extra Pages. If there were exactly as many pages as there were people, then when one person finished a comment, that person would have to wait for somebody else to finish before a page-swap could take place. With one extra page, there is always one waiting any time somebody finishes a comment, hence the extra page. The more people there are in the group, the more likely it is that several people will want to swap to the pile simultaneously. The additional 1-page-per-10-people seems to ease traffic jam caused when everybody "reaches" for the same spare page at the same time.

400 character limit in the EBS tool. The EBS tool limits people to 400 characters per idea so that they have sufficient room to express one idea clearly, if concisely, but not so many characters that they can do a brain dump. Again, the focus of this thinkLet is breadth, not depth.

6 people minimum. With fewer than six people, there aren't very many pages to swap, so the interchange doesn't seem very lively. With smaller groups, the OnePage thinkLet is probably more useful. In that thinkLet all the participants contribute to the same electronic page, which makes it seem to the team that a lot is happening quickly. It keeps the energy high.

1 line of text per person per minute. You will find that each participant contributes about 1 line of text (80 characters) per minute. Thus, a group of 20 people could produce up to 800 lines of brainstorming in a 40 minute session. That's a lot of text to wade through. Isn't it lucky for you that we've provided the BroomWagon thinkLet and the FastFocus thinkLet so you can manage all those comments with ease? Yes, we're thinking of your needs non-stop. Day and night, Week in and week out. Tireless, that's us, ever a thought for ourselves.

The Magic of FreeBrainstorming

The magic of free brainstorming lies in the question you ask, and in the way the thinkLet overcomes information overload.

Getting the Question Right. If you ask a team the wrong question, you'll get answers you can't use. And just to irritate you, you'll get these useless answers really fast, and you'll lots of them. We once worked with a military commander who wanted his team to generate some courses of action in response to an emerging crisis. However, in his haste he framed his question in terms of a particular course of action, and got lots of specific feedback which he didn't want or need. His conclusion: "This technology makes people tell you lots of useless details. I'll just go back to the old fashioned way, thank you."

When you frame a brainstorming question, ask yourself what kinds of answers it might elicit. Then ask yourself whether those answers would be useful. If necessary, keep rewriting the question until it is likely to produce valuable answers. If you're still unsure, consider using the OneMinuteMaddness variation of FreeBrainstorming to assure the group stays on task.

Overcoming Information Overload. No matter how many people you add to a FreeBrainstorm activity, the group never goes into information overload. That is because for each person you add to the group, you also add a new page. Therefore no page ever finishes with more than about 20 or 25 comments. Nobody ever sees more than about 20 or 25 comments at a time, so information overload does not set in.

A FreeBrainstorming Success Story

The largest FreeBrainstorm we know of was conducted by a facilitator named Brett Boston on behalf of President Jimmy Carter's Atlanta Project. About 200 people from all walks of life sat at about 100 networked computers to brainstorm about ways to improve the quality of life in Atlanta. Brett paired dissimilar people at each computer. He had a bank president and a homeless person at one computer; an environmental activist and a corporate executive at another. The pairs had to decide together what should be entered into the computer. The results became the foundation for a decade of community development.

What's in a Name?

This thinkLet is called FreeBrainstorming because a team members are free to follow any train of thought that emerges during the brainstorming activity. No external prompts are given to focus or guide thinking patterns. People are inspired only by the emerging thoughts of the others in their team.

OnePage

Choose this thinkLet...

- ... to generate a few (less than 80 or so) comments on one topic
- ... when 5 or fewer or fewer people will brainstorm together
- ... when 6 or more people will brainstorm for fewer than 10 minutes.
- ... when there aren't likely to be very many comments generated on the topic under discussion.
- ... to support back-channel communication among distributed team members.

Do not choose this thinkLet ...

- ... when you expect more than 80 or so comments because it may cause information overload. Consider FreeBrainstorm or ComparativeBrainstorm instead.
- ... when more six or more people will brainstorm until they run out of ideas. Consider FreeBrainstorm or ComparativeBrainstorm instead.
- ... when the team must address more than one topic at a time. Consider LeafHopper or Dealer's choice instead.

Overview

In this thinkLet, team members will all contribute comments simultaneously to the same electronic page or list at the same time.

Inputs

The brainstorming question or prompt.

Outputs

A set of comments in response to a brainstorming question or prompt.

How to use OnePage

Setup

- 1 Open a single list or comment window in Topic Commenter, Vote, Group Outliner, or Categorizer.
- 2 Match views with participants to open the same list or card on their screens.

Steps

- 1 Make sure the participants understand the brainstorming question or prompt. Say this:
 - a If you have any questions with respect to the brainstorming question or assignment, please speak up.
- 2 If necessary, facilitate a verbal discussion to address any understanding difficulties. If necessary, re-formulate the question or prompt.
- 3 Inform the participants of time limits, if any.
- 4 Let the participants contribute comments until they run out of ideas or until you call time.

Insights on OnePage

OnePage is the simplest of all the thinkLets. It's magic is mainly for groups of five and smaller. If you put a small group into FreeBrainstorming, they sometimes feel like nothing much is happening. It doesn't feel quite as lively as when a big group does it. When the same group uses OnePage, all their contributions appear on the same shared page, which makes it feel quite lively as one idea after another pops onto the screen.

The obvious danger of OnePage is information overload. When a page gets about 100 comments on it, people's lower lips begin to tremble. When the page gets 200 ideas their eyes roll back in their heads. When it gets to 300 they begin to suffer seizures and heart attacks. It's just too much stuff to wade through on a screen. Now consider that if 10 people contribute one line of comments per person per minute for 40 minutes (a fairly common situation) the group will produce 400 lines of comments. Many teams working online together have 15 to 20 people. In these cases it's far more effective to use FreeBrainstorming which mitigates all information overload.

OnePage Success Stories

OnePage is often incorporated into other, more complex thinkLets like Could-Be-Should-Be and BranchBuilder. It also comes in handy for many other tasks. A chat room, for example is really an instance of OnePage. The first time we scheduled a real a same-time-different-place activity that included people ship at sea, the OnePage thinkLet unexpectedly became the key to success. The activity linked people on the ship with others in three laboratories, and two universities so they could develop specifications for an experimental network. The participants had a voice link via telephone and radio, and they had a GroupSystems link via the Internet and satellite hook-up. As the activity got under way, the team leader (who was on the ship) told the participants that if the voice links went down, they would continue their activity using a OnePage to replace the voice link. Within 30 seconds the ship's voice link failed. With 15

seconds the leader established a OnePage thinkLet and invited the group to join. For the rest of the activity they managed all their transitions from thinkLet to thinkLet by handling all instructions for and questions from the participants via the OnePage.

What's in a Name?

This thinkLet is called OnePage because all participants make their contributions to the same page. In FreeBrainstorming every participant starts on a different page, and pages are traded around among the players, which prevents them from going into information overload. With OnePage all contributions appear on the same page, which creates a feeling of fast action.

ComparativeBrainstorm

Choose this thinkLet...

- ... To brainstorm solutions for a problem, and...
- ... When you know in advance what the criteria will be for judging whether a solution is good or not.
- ... When time is of the essence.

Do not choose this thinkLet...

- ... When you want to push people “outside the box” in their quest for solutions. Use FreeBrainstorm instead.

Overview

The team brainstorms solutions for a problem in response to a sequence of comparative prompts offered by a moderator.

Inputs

A set of criteria for deciding which solutions are good and which are not so good.

Outputs

A set of potential solutions.

How to ComparativeBrainstorm

Setup

- 1 Develop a set of comparative prompts based on the criteria for solution quality. (For instructions and examples see the Insights section below.)
- 2 Post a problem statement as the brainstorming question in Electronic Brainstorming.
- 3 Create one brainstorming page for each participant, plus one extra, plus one additional page for each 10 people in the group (see the Setup and Insights sections in the FreeBrainstorming thinkLet for an explanation)

Steps

- 1 Make sure the participants understand the problem
- 2 Say this:
 - a Please click the “Go” button to open a brainstorming page.
 - b Each of you is starting on a different electronic page.

- c Please type in the single best solution to this problem that you can think of.
 - d When you finish typing your solution, please do not submit it. Just cross your arms so I'll know you're done.
- 3 Wait till all have finished typing their first idea, then say this:
 - a Now press the F9 key to swap pages. Keep pressing the F9 key until you see a page with somebody else's solution on it.
 - b Give one of the comparative prompts. (See the Insights section below for explanation and examples).
 - 4 Repeat the pattern of swapping pages and responding to comparative prompts until the group runs out of time or ideas.

Insights on ComparativeBrainstorm

The Magic of ComparativeBrainstorm. By now you are no doubt wondering about these comparative-prompts-based-on-the-criteria-for-solution-quality. These and the page swapping are the magic of ComparativeBrainstorm. Imagine that you had a team that was trying to find ways to improve manufacturing methods. The criteria for good solutions might be:

- Reduced production time
- Higher quality
- More consistent quality
- Reduced production cost

Your comparative prompts would ask people to come up with solutions that were better along those dimensions. Your activity would go something like this:

"Give me a solution that is more likely to reduce production time than would the ideas you see on your screen"

(Trade pages)

"Now give me a solution that is more likely to produce higher quality products than would any of the ideas you see in front of you.

(Trade pages)

"Now contribute a solution that would be more likely to improve consistency of quality than would any of the previous ideas on your screen."

(Trade Pages)

"Think of a solution that would be more likely to cut production costs than any of ideas you've seen so far"

If you were working with a team to improve conditions at an overcrowded university, you might prepare a list of comparative prompts before the meeting that looked like this:

More likely to

- a Cut class size
- b Reduce faculty workload
- c Bring in immediate cash
- d Improve graduation rates

You can cycle through your prompts several times, and you can change their wording as you go to keep things interesting. The magic, though, is in the cycle of swap-contribute better –swap – contribute better. Sometimes you'll get a team where some people are very fast and some people are very slow. If you want you can let the fastest people swap pages and continue contributing while you are waiting for the slowest people.

Fast and high quality, but not necessarily exhaustive. The ComparativeBrainstorm thinkLet is very fast and very focused. You tend to get good quality solutions, and the quality tends to get better as the process unfolds. There is very little noise in the results. People don't contribute silly and bad ideas, and they don't make comments about other people's ideas. This means that it takes far less time to converge on the key issues when the brainstorming is over.

However, this lack of noise can be a two-edged sword. In FreeBrainstorming people tend to argue with and elaborate on ideas. In ComparativeBrainstorm they do not. Silly and bad ideas can be useful for pushing people outside the box, to explore the boundaries of their problem space and their solution space. Further, un-discussed and unchallenged ideas may be less well-understood and less useful than ideas that have been kicked around. So make sure you schedule a discussion to follow a ComparativeBrainstorm.

ComparativeBrainstorm Success Story

We once worked with a team of eight planners on the command ship for the U.S. Navy's Third Fleet. During field maneuvers, it was this team's job was to listen to intelligence briefings, and then to try to guess what the enemy might be doing. They would hold an oral discussion, then brief their commander on the enemy's most likely, least likely, and most dangerous courses of action, given the available intelligence. This process took about 90 minutes, during which the team typically considered four to six possibilities.

The team agreed to try a comparative brainstorming approach with the following prompts:

*"What is the enemy's most likely course of action? Now swap pages"
"Now tell something they might do that would be far more surprising than the idea you see before you. Now swap pages again"
"Now think of something they might do that would be far more dangerous than either of the ideas on the screen in front of you. Swap pages again."*

The team completed eight cycles in seven minutes, producing 56 possible courses of action the enemy might be preparing to take.

The team followed up with a BucketShuffle thinkLet, and in under half-an-hour was prepared to brief the commander on the most likely, least likely,

and most dangerous courses of action the enemy might be pursuing, having engaged in a discussion with far more breadth and depth than had been possible using conventional means.

What's in a Name?

We call this thinkLet ComparativeBrainstorm because we ask the participants to compare their new ideas to the ideas that already exist, and to reject any contributions.

ThinkLets for divergence – with seeds

LeafHopper

Choose this thinkLet...

- ... when you know in advance that the team must brainstorm on several topics at once, and
- ... when different participants will have different levels of interest or expertise in the different topics, and
- ... when it is not important to assure that every participant contributes to every topic.

Do not choose this thinkLet...

- ... if you want the participants to address topics in a specific order. Use DealersChoice instead.
- ... if you want all participants to address all issues. Use a DealersChoice instead.

Overview

Participants start with an electronic list of several discussion topics. Each hops among the topics to contribute as dictated by interest and expertise.

Inputs

A list of topics that must be addressed by the team.

Outputs

A set of comments organized by discussion topic

How to use LeafHopper

Setup

Create a list of topics for discussion in Topic Commenter or one of the other list building tools (or create an outline of topics in Group Outliner).

Steps

- 1 Explain the topics to the group and verify their understanding.
- 2 Explain the kinds of ideas that the group must contribute.
- 3 Say this:
 - a Start working on the topics in which you have the most interest or the most expertise. Then, if you have time, move to each of the other topics to read and comment on the contributions of others.
 - b You may not have time to work on every topic, so work first on the topics that are most important to you.

Insights on LeafHopper

Sometimes your team must discuss several topics more or less simultaneously. For example, we have a colleague who worked with a series of groups on resolving pollution issues. He discovered that he got significantly more value from a group by posing three simultaneous questions in a LeafHopper...

What can we do about air pollution?

What can we do about water pollution?

What can we do about ground pollution?

...than he got by posing one FreeBrainstorming question with three parts...

What can we do about air, water, and ground pollution?

He also got more value from the groups by posing the three questions simultaneously than he did by posing them one at a time with a DealersChoice thinkLet. People could hop between the questions as they were inspired.

With LeafHopper it is not necessarily the case that every participant will see every topic. Sometimes that is exactly why you use it. If, however, you want to assure that every participant contributes to every topic, consider using the DealersChoice thinkLet.

LeafHopper Success Story

We once worked with a commercial software development team that had 12 tricky issues to resolve. They needed input from engineers, customers, product managers, developers, users, and several other success-critical stakeholder groups. They discovered a rare opportunity when all the high-powered stakeholders were to be in the same place at the same time, and managed to schedule a meeting. Then they realized that although they needed input from all the stakeholders, any given stakeholders only had an interest in about 1/3 of the issues. This meant that no matter what topic was being discussed, 2/3 of these high-powered participants would be sitting around bored. It's a bad thing to bore high-powered participants, but unfortunately, the mix of issues and interests was such that they could not simply schedule sub-sessions around each topic. LeafHopper to the rescue. The development team posted the issues to the GroupSystems Topic Commenter. They asked the participants to work first on the topics in which they had the most at stake, and on which they had the most expertise. The participants proposed options for resolving each issue, then argued the pros and cons of the proposals. The whole discussion of 12 topics took just over an hour and a half. In a subsequent BucketWalk the group reached consensus on seven of the outstanding issues and assign action items for collecting information on the other five. The whole group was fully engaged in the activity throughout the event. Said one participant, "We just did a week's work in three-and-a-half hours."

What's in a Name?



A leafhopper is a small insect that is something like a grasshopper or a cricket. It hops from leaf to leaf eating what it wants, then moving on. We named this thinkLet LeafHopper because the team members can jump from topic-to-topic, contributing as they are inspired, then moving on.

DealersChoice

Choose this thinkLet...

- ... when the group must brainstorm on multiple topics.
- ... when you want to assure that certain participants address particular topics.

Do not choose this thinkLet...

- ... if the order in which topics are addressed by the group does not matter.
- ... if the background, organizational position, or expertise of the participants is of no essence to the discussion of the topics.

Overview

In this thinkLet, the facilitator decided which participant is brainstorming on which topic. The facilitator offers the topics to the participants identifying who is going to work on what. Often, you use this to make sure that the team focuses on the same topics when you want it. You can make sure that each topics receives sufficient attention.

Inputs

A set of topics.

Outputs

A set of comments organized by topic.

How to use DealersChoice

Setup

Post the set of topics in Topic Commenter.

Steps

- 1 Explain the topics to the group.
- 2 Explain what kinds of responses will be useful.
- 3 Determine which participants have to contribute to which topic.
Assign participants to work on their topics, saying:
 - a Could <names of participants> please start working on <one or more topics>, while <names of participants> first contribute on <one or more topics>.
 - b When <names of participants> are done, please proceed to <one or more topics>.
- 4 Monitor progress among the participants and if necessary, stimulate participants to move on.

Insights on DealersChoice

Different Strokes for Different Folks. There are several ways you can implement the DealersChoice thinkLet. Often you do not split the group into subgroups, but let all participants work on a topic at the same time. The steps above describe one common way. Here are a couple of others:

- 1 Instead of adding all the cards to the Topic Commenter at the beginning, add each card as it is needed. Let all participants work on the current card, and let them jump back to earlier cards if they think of something relevant.
- 2 Get a verbal agreement from each subgroup of participants that they will work in the section where you ask them to work.
- 3 If you want to be absolutely sure every participant is on the same page with you, use the GroupOutliner Tool. You can choose to send a single outline node to the group, so they can only see the section you want them to work on.

Consider LeafHopper. Sometimes you have people in the group who are only interested in part of the topics to be discussed. These people will sit around bored when you are discussing the topics in which they have no interest or expertise. Other times it simply doesn't matter whether the whole group works on the same topic at the same time. In both of those cases, consider using LeafHopper. Use DealersChoice only when you want to be sure every participant responds to every item, and when it's important that every participant be working on the same topic at the same time.

Success Stories

We once worked with a group of 50 ministers of Information Technology from 24 Commonwealth countries. They gathered in Malta for three days to listen to presentations about National IT policies and to formulate recommendations about national IT policy for their heads of state. As each presentation began, we added a discussion card with the name of the speaker to a GroupSystems Topic Commenter tool and opened the card on the screens of the participants. They could comment on, argue with, or expand on issues raised by the presenter. They could also ask questions that the presenters could answer after the talk.

The activity was a complete failure. It turned out that the participants were quite convinced that the speaker and the other participants would find the key-stroking rude and disruptive during the talk.

We knew, in fact, that the keyboards were not disruptive, because during one plenary session an organizing committee of 12 people held a separate on-line planning activity while the speeches were underway.

Nobody on the stage and nobody else in the audience even noticed. Still, it took us a year to learn that if you want people to type during a speech you must:

- 1 Get the participants to use the keyboards for a brief warm-up activity before the speeches begin
- 2 Have the presenters encourage the group to respond online

Since that time we have had many fantastic meetings supported by the DealersChoice thinkLet. In one case we supported an annual gathering of admirals and generals from the U.S. military. Afterward, a three-star Admiral said, "I'm not sure that having 25 flag officers take cheap shots at one another is the most effective use of this technology." Then he went on to reflect that, in previous years, arguments and pontification had caused the work at this conference to grind to a halt. He noted that this year all the pontification happened on line without interrupting the briefings. He concluded that perhaps it was a good use of technology after all.

What's in a Name?

In a game of poker, the dealer gets to choose which rules will apply (stud? draw?) and which cards are "wild". In the DealersChoice thinkLet, the facilitator gets to choose which topics the team will address and in which order. Just as a dealer distributes playing cards to the other players, so the facilitator "deals" out the topics for the team to address.

Plus-Minus-Interesting

Choose this thinkLet...

... if you want to prepare the evaluation of one or more ideas by elaborating on them first. For example, this may be the case if your group is considering various courses of action in a strategy discussion, or evaluating a project that has recently been concluded.

Do not choose this thinkLet...

... if you're not going to follow the elaboration with a formal evaluation or choice activity.

Overview

In the Plus-Minus-Interesting thinkLet the team expresses the pros, cons, and insights about a set of concepts. The idea is that they give both positive and negative feedback on these ideas, while pointing out intricate aspects that are worth the group's attention. This thinkLet is especially useful if you are going to let the group take a vote on, for example, a set of solutions for a problem and you want them to look at all sides of the coin beforehand. Differently said, Plus-Minus-Interesting is a good way to prepare an informed decision.

Inputs

One or more ideas that have to be elaborated on, possibly including a list of aspects or attributes that you want the group to consider separately.

Outputs

A balanced set of considerations, organized by idea or by idea attributes.

How to use Plus-Minus-Interesting

Setup

- 1 Create an outline in GroupOutliner, consisting of the idea(s) to be elaborated, and three leafs for each idea, labeled "Plus", "Minus", and "Interesting".
- 2 Allow the participants to contribute comments only to the leafs of the outline.

Steps

- 1 Explain the items on the outline and make sure everyone in the group understands them.
- 2 Say this:
 - a Let's look at these items in more detail before we further evaluate them.
 - b I want you to share any positive or negative feedback on these items with the group.
 - c Also, contribute any interesting observations that you have about these items.
- 3 Let the group brainstorm and contribute their feedback. For this, you may choose to use a LeafHopper or DealersChoice thinkLet.
- 4 After the group has given their feedback, give them some incubation time by saying:
 - a Please take a moment to read through the feedback that has been given.
- 5 Normally, there are some items in the "Interesting" category, so be sure to check this yourself while the group is reading.
- 6 After the group is done reading, ask if there are any issues that they want to discuss before moving them into the evaluation activity:
 - a Were there any "Plus" or "Minus" contributions that you like to discuss at this point?
 - b Are there any "Interesting" contributions that would impact the Plus or Minus of an item?
- 7 If you feel the group is missing critical issues that you found yourself, bring them to the groups attention.

Insights on Plus-Minus-Interesting

As an elaboration thinkLet, Plus-Minus-Interesting is always performed in preparation of an evaluation or choice activity. This subsequent activity may be done by the group itself, or someone that the group reports to. Plus-Minus-Interesting works especially well reflections on projects, processes, or multi-faceted issues such as company strategy, proposals, or job applicant selections. It can also be effectively be used for Knowledge Management purpose to identify key lessons learned form past performance.

The key to Plus-Minus-Interesting effectiveness lies in the fact that you keep reminding the participants that every item under consideration has at least two and sometimes three sides. Through this thinkLet you encourage participants to provide feedback on both sides of the coin, and its rim. The magic of Plus-Minus-Interesting is often found in the "Interesting" part. This is where participants contribute thoughts and perspectives that others often have not considered yet. You have to make sure that the group gets a chance to appreciate these contributions.

Plus-Minus-Interesting can be very naturally combined with other elaboration thinkLets such as LeafHopper or DealersChoice, especially if the group has to provide feedback on a whole outline. Before moving the group into an evaluation thinkLet, you may also want to do a quick Lobbyist to give the participants a chance to act on the results of the Plus-Minus-Interesting.

Plus-Minus-Interesting Success Stories

Plus-Minus-Interesting is frequently used as it is such a versatile thinkLet to encourage focused elaboration. We applied it very successfully in an Internet company that had just finished the User Acceptance Test (UAT) of the new release of their web application. During a UAT, the application is tested for incorrect functionality and bugs (together called Defects) by running a large variety of test scripts. Defects are reported, fixed, and tested for again. The Internet company's UAT process was completed successfully, yet took too long and left a feeling that it should go better next time.

We invited 20 different participants that had been closely involved in the UAT to a "Sunset" meeting in order to evaluate the process and define some action items for future UATs. We prepared an outline with various aspects and sub-aspects of the UAT, such as UAT Preparation (building test scenarios, building prediction matrices, planning etc.), UAT Process (responsibilities, process management, progress), and Defects Handling (assigning defects, fixing defects, re-testing, defects administration). Each of the sub-aspects were elaborated on in a two hour Plus-Minus-Interesting exercise that resulted in almost 400 contributions. The elaboration was taken as starting point to BroomWagon the areas that needed most improvement, followed by a DealersChoice to identify key action items for (the preparation of) future UATs.

What's in a Name?

The name of the thinkLet just describes what you ask the group to do: identify positive aspects, negative aspects, and anything else interesting that you want to share regarding some set of ideas.

TopFive

Choose this thinkLet...

- ... as a transition between two other thinkLets.
- ... to manage geometric explosion and information overload when each concept that emerges during the first thinkLet becomes a starting point for another divergence thinkLet.

Do not choose this thinkLet...

- ... it is mandatory that every concept identified in the first step be exhaustively addressed in the next step.

Overview

In this thinkLet you move the top five (or so) items from a previous divergence thinkLet forward into the next divergence thinkLet, where each item carried forward becomes the basis for additional elaboration and brainstorming. By doing this you manage the exploding detail that might occur if you moved all the items from the first divergence directly into the second divergence. If you take an exhaustive approach, you could move quickly from handling 10 concepts to handling 100 concepts to handling 1000 concepts. With TopFive you handle only a few concepts at a time. When you finish dealing with the top five items, if time permits you can cycle back and carry the next five items through the second divergence step. You can continue cycling as long as time and interest permit, but you can stop in any cycle knowing that the most important issues were addressed first.

Inputs

The top five concepts from the previous step.

Outputs

Elaborations of the top five concepts, and a decision to cycle back.

How to use TopFive

Setup

- 1 Conduct an appropriate divergence thinkLet to generate useful concepts.
- 2 Conduct appropriate convergence and evaluation thinkLets to prioritize the concepts from the first step.

Steps

- 1 Select the top five (or so) concepts from the first step and carry them forward to the next divergence step.
- 2 Elaborate those five ideas, and converge and evaluate the elaborations as appropriate. Choose the top five items to carry forward to subsequent steps.
- 3 As time permits, cycle back and select the next five concepts from the first step and carry them forward into the next step.
- 4 Repeat the TopFive thinkLet as time and resources permit.

Insights on TopFive

The magic of TopFive is the predictability it gives you in the face of exploding complexity. Although you may not be able to predict in advance how many issues and sub-issues will emerge, you will be able to predict how many of the issues and sub-issues you will move through your process to a conclusion. You will have some assurance that the issues and sub-issues you choose to address will be those that most need attention. You can use TopFive as the basis for cycles in your group process. First you brainstorm and prioritize a bunch of top-level items. You take the top five (or so) forward to the next step. There you brainstorm a bunch of sub-items around those top five. When you finish with the top five, you can cycle back and pick up the next five items on the original list and move them forward to the next step.

Although we call the thinkLet, “TopFive,” you have complete flexibility to change the numbers. You could just as easily move the top three, the top one, or the top 100, depending on the demands of the task at hand. The key concept is that of moving the top items forward to the next step, while leaving the rest of the items behind to be dealt with later.

You can string TopFive cycles together and nest them to manage multiple layers of complexity. See the Success Story section below for an example.

TopFive Success Stories

A major Professional Services Organization frequently conducted two-day internal audits for its clients. In this workshop, the clients were to identify all their business processes, then identify all risks associated with each process, and then identify and assess the controls for each risk. Following this, they were to generate action items for addressing any deficits they discovered among the controls. However, the workshops tended to founder under the massive amount of detail with which the teams had to grapple. The workshops never got as far as creating action plans, because they could never get through identifying all the controls for their risks before time ran out. The auditors and clients alike felt frustrated that they could not predictably, repeatably produce useful deliverables in their workshops.

We redesigned the process as a set of nested TopFive thinkLets. First the team used a ReviewReflect thinkLet to identify their key business

processes. They prioritized the processes from most risky to least risky with a 1-10 straw poll. Then they moved the five most risky processes into a LeafHopper divergence, where they identified the most important risks for each. Using an open discussion, they quickly built a consensus about which process was the most risky. They prioritized the risks for that process, and then moved the top five risks for that process forward to the next step.

Next, the team used a LeafHopper again to identify the controls that were in place for each risk. They evaluated the efficacy of the controls with a 10pt scale StrawPoll. From the results they selected the five controls that needed the most attention, and carried them forward into the action planning activity. Having done so, they cycled back and picked up additional controls for action planning. When they finished the controls for the first set of risks, they cycled back for an additional five risks. When they completed the risks for the first process, they cycled back for the next process.

Using this approach, the team could be sure, that, no matter how complex their business situation, that by the end of the workshop they would have action plans to address the most important deficits in the controls for their riskiest business processes. As time permitted they could move back and address some of their lower-risk processes.

What's in a Name?

We call this thinkLet TopFive because at each step of a process, one chooses only the five most important concepts to carry forward to the next step of the process. As time and resources permit, one can cycle back and pick up the five next-most important concepts for processing, but one can be assured of accomplishing something meaningful with the most important concepts without being bogged down by an overload of details.

BranchBuilder

Choose this thinkLet...

- ... to capture and organize subaspects and subtopics of one or more well-understood issues.
- ... to build a hierarchical outline describing the anatomy of an issue or topic.

Do not choose this thinkLet...

- ... to come to grips with poorly-understood, complex, ill-structured issues. If an issue is expected to have a plethora of sub-issues and perspectives, consider the Could-Be-Should-Be thinkLet instead.

Overview

In this thinkLet, people develop a hierarchically organized outline of their thoughts. The team members use some other divergence thinkLet develop the high-level headings for an outline. Then they roam over the outline adding subheadings and sub-sub-headings as they deem it necessary.

Inputs

The main headings for an outline.

Outputs

An outline that aggregates the knowledge of the team members.

How to use BranchBuilder

Setup

Post the main headings for an outline in Group Outliner.

Steps

- 1 Say this:
 - a “We now have a good first draft of the main headings for this document. Please work your way through this outline adding sub-headings and sub-sub-headings wherever you believe they are necessary.
 - b “Any addition you make to the outline will appear immediately on the screens of all the other team members.”
- 2 When the participants are done elaborating the outline, conduct a BucketWalk review for each heading to assure that the team is satisfied with its structure.

Insights on BranchBuilder

In BranchBuilder, the team takes over the outline and elaborates it directly, unlike Could-Be-Should-Be, where participants brainstorm and converging for every layer of the outline. This works well when each team member is familiar with the knowledge she or he will contribute to the outline. People who know the content well are not likely to contribute ambiguous, redundant, or irrelevant content. Levels of abstraction are likely to be appropriate to the task.

BranchBuilder is less effective if the team is trying to make sense of new, complex, ill-structured issues. When struggling to create knowledge rather than to record it, people tend to put poorly formed, irrelevant, and redundant headings onto the outline, and then have difficulty cleaning up the resulting mess. For such a circumstance, consider using Could-Be-Should-be.

BranchBuilder Success Stories

We once worked with a large and diverse organization in the public sector that published an annual yearbook describing key events and activities for each of its major divisions. The yearbook was distributed to key stakeholders inside and outside the organization to keep them apprised of what was happening.

The yearbook task was complex. It involved coordinating contributions from many sectors, and producing a slick, professional looking product with photographs and type-set text. Personnel who were assigned to the yearbook project were typically young high-performers who were being groomed for the fast track. Their assignments were temporary, typically for a year or two. As a result of the high turn-over, each year the yearbook team found themselves re-inventing the wheel. For three years running, the yearbook staff tried to write a manual about how to produce the yearbook, but for three years in a row, they abandoned the effort because they found themselves drowning in detail.

The 20 yearbook staff members used FreeBrainstorm on the question, *“What topics should be covered in the How-To Manual?”* This was followed by a FastFocus and a BranchBuilder. During the BranchBuilder exercise the team constructed and revised an outline of nearly 100 subheadings, which then became the foundation for a successful TeamWriting process.

What’s in a Name?

This thinkLet is called BranchBuilder because the participants work in parallel to build the branches of an outline. Like a tree that grows naturally in a well organized fashion with its biggest branches at the bottom and its smallest at the top, so knowledgeable participants use BranchBuilder to grow a well organized representation of their knowledge.

TheLobbyist

Choose this thinkLet...

- ... if your group has generated a fair number of fairly complex items that require some additional elaboration before they move into an Evaluation thinkLet.
- ... if the people in the group have stakes in the results of the ensuing Evaluation thinkLet and you need to let each of them have a fair chance to make these stakes explicit.

Do not choose this thinkLet...

- ... if the set of items that the group has generated is really fairly simple to understand, so that the complexities do not have to be explained.
- ... if personal stakes regarding the items are not an important issue. In that case, just use an Evaluate thinkLet followed by a Crowbar to tease out the intricate aspects of some of the items.

Overview

In this thinkLet, people advocate their positions on complex issues. When your group is facing a set of key issues, items, or ideas that they have to evaluate in a next activity, it may pay off to give everyone in the group a chance to take the floor and argue favorably for one of the items. This way, each participant in the group gets a fair chance to put forward his or her preferences based on the stakes they perceive. In addition, it will give the group a chance for some preliminary reflection on what they perceive are the key items.

Inputs

A set of items that are ready to be evaluated, e.g. the results of a FreeBrainstorm or OnePage.

Outputs

A sense in the group what each participant finds important and why.

How to use TheLobbyist

Setup

Participants view the list of items on their own screen.

Steps

- 1 Say this:
 - a Before we evaluate the ideas displayed on your screen, let's take a short moment to elaborate on them and see which ones you really like.
 - b You may express your personal preference as follows: Each of you may argue in favor of one of the items on the list.
 - c You may only argue in favor; you may not criticize an item.
 - d If the item that you prefer has already been argued for, say "I pass".
- 2 Let every participant have his or her say while making sure that nobody takes too much time.
- 3 When everyone has had their say, continue with the Evaluate thinkLet.

Insights on TheLobbyist

TheLobbyist is a very effective thinkLet to use when you know or sense that some individuals in the group have generated pet ideas that need to be considered. People really like it if they get a chance to explain 'why' certain contributions are really key. This way chances are minimized that their pet idea will drown and not surface after the evaluate thinkLet. There are a couple of traps that you have to avoid when you are using this thinkLet:

- Enough ideas?
The purpose of TheLobbyist is to let people bring forward what they perceive are the key items in a larger set. The thinkLet is only useful if you have a fair number of ideas, e.g. twice as many as you have participants. If you only have a few ideas, you might as well do a brief Plus-Minus-Interesting on the list.
- Constructive comments only
Some people may have a tendency to take the opportunity to criticize certain ideas on the list instead of saying something favorable. If this happens, interrupt them by saying: "Remember that the purpose of this activity is to argue in favor of certain ideas. If there are ideas that you really do not like, you may express so during the evaluation activity that will follow shortly." You want to maintain a constructive and positive atmosphere. Allowing criticism may soon lead to a fierce debate among participants over one particular idea. Save this debate until after the evaluate exercise, e.g. by using a Crowbar.

- Long-winded lobbyists
TheLobbyist is meant to be a swift and crisp activity. However, you will inevitably run into people that will seize every opportunity to take the floor and hold on to it. You have to cut them off if they do this by saying “Thank you. I think everyone understands your position now. Now, let’s move on to the next person to hear his position.” You may also agree with the group on a time limit, e.g. every person gets about 30 seconds to argue for an idea.

TheLobbyist Success Stories

TheLobbyist is an easy and fun thinkLet to use. There are many examples where we’ve let the participants express their preferences before moving them into an evaluate thinkLet. One such example occurred at a large insurance company. Members from various Marketing groups in the company came together to brainstorm characteristics of a to be developed “luxury insurance”. The group brainstormed about 130 ideas. Given the varied background of participants (each had marketing experience with different types of insurance products), we let them argue in favor of certain aspects of the proposed policy before moving them into a BroomWagon. The BroomWagon turned out to be swift and easy: the majority of lobbied ideas ended up in the final pick after two votes and were subsequently used as seeds for a LeafHopper to tease out more detail.

What’s in a Name?

Lobbyists try to convince people (mostly politicians) of a certain point of view. They can be considered mercenary activists: their point of view depends on their beneficiary. In group meetings, people may defend their own interests or those of the stakeholder group that they represent.

ThinkLets for divergence – variation

OneMinuteMadness

Choose this thinkLet...

- ... if your group has enthusiastically begun diverging but their contributions are on various levels of abstraction.
- ... if your group is answering the brainstorming question, but not correctly. For example, in a SWOT-analysis (Strength, Weakness, Opportunity, Threats) of the company, people often forget that strengths should be internally focused, and opportunities externally.

Do not choose this thinkLet...

- ... if a group needs some time and leeway to explore the brainstorming space, e.g. when they are working on a vague issue and the goal of the brainstorming process is to collect as large a variety of perspectives as possible.

Overview

In this thinkLet you redirect a group's brainstorming efforts when their answers suggest they do not fully understand the goal of the activity. The OneMinuteMadness thinkLet can be considered an add-on to or variation of any divergence thinkLet. It helps you to keep the group focused if it becomes apparent that they are not responding in the right way to the divergence question that you presented to them. You interrupt them, illustrate to them that they are not staying on track, and then let them continue.

Inputs

A small set of divergence results that do not adequately answer the divergence assignment you gave the group.

Outputs

Re-focused participants ready to resume diverging.

How to use OneMinuteMadness

Setup

Start the participants in any list building tool for any divergence thinkLet.

Steps

- 1 Get the participants going using the script from the particular divergence thinkLet that you are using.
- 2 Read through the participants' contributions as they come in and check how they're doing.
- 3 If you judge the participants' contributions too far off track, yell:
 - a Time out!!!
 - b Let's take a quick look at some of the contributions so far, because I think we need to evaluate them with respect to the question.
- 4 Explain to the group the problems with the contributions concerned. Point out appropriate contributions, if any, or provide an example of an appropriate contribution.
- 5 Let the participants continue diverging
- 6 Keep checking the contributions as they come in and interrupt again if necessary.

Insights on OneMinuteMadness

OneMinuteMadness is a very handy way of preventing things to get out of hand. You check what's going on and intervene if necessary. Especially in an electronic meeting, things may get out of hand very quickly if the participants are not answering the right question or are not answer the question in the right way. You may get 10 contributions per minute, meaning that every minute that you do not intervene, you will be faced with more hassle to make sense out of the group's output at the end of the brainstorm.

When you are interacting with the group after your intervention, it is key to not only point out the contributions that have problems, but also illustrate the type of contributions you are looking for by drawing the attention to some good contributions. This will give the group a stimulus and some inspiration.

A OneMinuteMadness does not have to be a preplanned part of your meeting agenda. When you see that the group is heading in the wrong direction, you can just execute OneMinuteMadness and interrupt them.

OneMinuteMadness Success Stories

We were working with a police squad that had made internal integrity a strategic issue. In a workshop, a broad representation of the squad was invited to identify and analyze problems with respect to integrity (such as corruption, theft, fraud etc.) and then jointly identify a number of high priority action items. During the first part of the workshop, the group's focus was wandering: Problem descriptions were either very vague, very general, or not concerning problems at all but rather solutions. When we saw this happening, we intervened with a OneMinuteMadness and re-focused the group's level of abstraction and contribution characteristics.

We explained which were the correct items on the brainstorming list and which were the less useful one. After this intervention, they managed to produce a well balanced list of integrity problems.

What's in a Name?

With OneMinuteMadness you may let the group go crazy for a minute or so before bringing them down to earth, re-focusing them, and letting them go again. A minute is normally enough to see whether the group is on the same level of abstraction and the right track or not.

ThinkLets for convergence – Shared Meaning and Filter

FastFocus

Choose this thinkLet...

- ... to quickly extract a clean list of key issues at a useful level of abstraction from the results of a divergence activity.
- ... when it is important to assure that group members agree on the meaning and phrasing of the items on the resulting list.

Do not choose this thinkLet...

- ... to reach consensus on the key issues that results from a divergence activity. FastFocus only helps you to list the key issues, not discuss their merit. Consider following the FastFocus with a StrawPoll and Crowbar.
- ... if the results from the divergence activity represent predominantly well formulated and focused responses that can be categorized easily. Use a PopcornSort followed by a BucketWalk & BucketBriefing instead.

Overview

The team browses through the brainstorming contributions. Each team member in turn proposes aloud a key issue. The team discusses the meaning and the wording of a proposed item. The moderator posts well-framed items on the public list.

Inputs

Comments from a brainstorming activity.

Outputs

A clean, non-redundant list of the key issues raised during a brainstorming activity.

How to use FastFocus

Setup

- 1 Participants view their comments in Electronic Brainstorming.
- 2 The facilitator displays an empty public list, e.g. in Vote or Categorizer.

Steps

- 1 Explain clearly the kind of items that belong on the public list. If you want problem statements, give examples of problem statements. If you want solutions, give examples of solutions.

- 2 Say This:
 - a Each of you is on a different electronic page. Each of you has a different part of our brainstorming conversation on the screen in front of you.
 - b Please read the screen in front of you, and tell me the single most important issue represented in the discussion on your screen that should be included on this public list.
- 3 Call on each person in turn. Elicit one concept. Reframe the concept in as few words as possible. Check with the person to assure that your reframing captures the issue appropriately
- 4 When you have called on everybody in the group, say this:
 - a Now press the F9 key (or click the submit button) to swap pages. Each of you should now see a different page.
 - b Read the new page and raise your hand if there is an important issue on the new page that has not yet been posted to the public list.
- 5 Call on people who raise their hands. Discuss, condense, and add their issues to the public list.
- 6 Say this:
 - a *Now press the F9 key to swap pages again. Every page has now been seen by at least three pairs of eyes. Is there any issue on the screen in front of you that has not yet been posted to the public list?*
- 7 Continue the cycle of page swapping and elicitation until nobody can find any important issues to add to the public list.

FastFocus Insights

After a brainstorm, when the time comes for your team to converge on just the key issues that are worthy of further attention, you might be tempted say to yourself,

“Hey, self, we’ve got this great GroupSystems technology. Why don’t I just let the group build a shared list of issues for themselves? They could all work in parallel and we’d have that list snappy-quick.”

We encourage you to follow up on that thought, just for the experience. Here’s what you’ll find.

- **Redundancy:** Seven people find 9 different ways to put the same item on the list.
- **Irrelevancy:** If you want a list of problems, some people will post solutions. If you want a list of solutions, some people will post arguments. If you want a list of arguments, you’ll get places to eat dinner. Your list will be liberally sprinkled with irrelevancies.
- **Inappropriate levels of abstraction:** Some posts will offer a forest when you need a tree. Others will offer a leaf when you need a branch. The level of abstraction will vary widely.

- **Lack of Clarity** Some posts will be ambiguous, others simply unintelligible. The team will not share an understanding of the items.

With FastFocus, there are no problems of redundancy, irrelevancy, abstraction, or clarity because you, as the moderator, will see to it that items are well framed and well understood before you put them on the list.

Dealing with Redundancy. If someone offers an item that is very like something that is already on the list, you can say,

“Is that the same as Item 7, or is it a different concept?”

Often they will simply acknowledge that Item 7 covers the concept. Other times they will say theirs is different. Ask them to explain the difference, then add their item to the list. Occasionally it will be useful to edit Item 7 to expand it or raise its level of abstraction. If someone insists on adding an obvious redundancy, one way to deal with it is to add it as a comment under the list item (In GroupSystems, when you double-click any list item it opens a comment window where people can discuss the list item).

Dealing with Irrelevancy. If people offers an item that doesn't belong on the list, you can ask them to reframe it like this:

“We are building a list of causes, but your idea sounds like a symptom. Is there a way to reframe that in terms a cause?”

“Remember, we're working on a list of solutions here, but I think you just proposed a way to measure the effectiveness of a solution. Was there a particular solution you had in mind that we should add to the list?”

Dealing with inappropriate levels of abstraction: If you are asking the group to converge on possible ways to ship a product, and people offer fuel injection and tires for the list, they've moved to too low a level of abstraction. If people offer “by land” they are at too high a level of abstraction. You probably need truck, train, and motorcycle courier. When this happens, help the team member reframe the contribution before adding it to the list. You can say things like,

“Yes, there are several kinds of transportation available that use tires. Which of them would be appropriate for shipping our product to market?”

“Good, we could certainly ship by land. Which modes of land transportation might be most appropriate for shipping our product to market?”

Dealing with lack of clarity. Sometimes people will propose items that you simply that you simply can't understand. It's a safe bet that if you don't understand it, others don't understand it. When this happens we like to plead ignorance and ask for help:

“I'm a stranger in these parts. What exactly do you folks mean when you say ‘the etymology of dual anachronistic colloquialisms?’”

As they explain it to you, they'll be explaining it to the rest of the group. Sometimes people will say things that can be interpreted in more than one

way. For example, if you were converging on the key barriers to the rollout of a new technology, someone might offer, “culture.” You might respond like this:

“Do you mean organizational culture, or differences among nationalities?”

And, of course, you will then want to drill down to the appropriate level of abstraction with a question like,

“What is it about our organizational culture that creates a barrier to the adoption of this technology?”

The Magic of FastFocus. Experience suggests that a FastFocus convergence is about four times faster than letting the team contribute in parallel to a rough list, and then cleaning up the results with a Concentration thinkLet. We usually allow about ½ as much time for the FastFocus as we allow for the brainstorm that precedes it. The parallel-contribution-to-list-then-clean-up-list approach takes about twice as long as the brainstorming.

Beyond that, the real magic of FastFocus is in the oral discussion. After a brainstorming session people have a strong feeling that their discussion lacks closure. It is in the oral discussion that people come to believe that the rest of the team has heard and understood their ideas. It is during the oral discussion that people negotiate and agree on shared meanings for the words they are using.

FastFocus Success Stories

We’ve used the FastFocus thinkLet in hundreds of different tasks with thousands of different groups. Here are a few highlights that may give you a sense of the diversity of its usefulness. In each case the teams began with a brainstorming activity. Each case is perhaps best illustrated though it’s key FastFocus prompt:

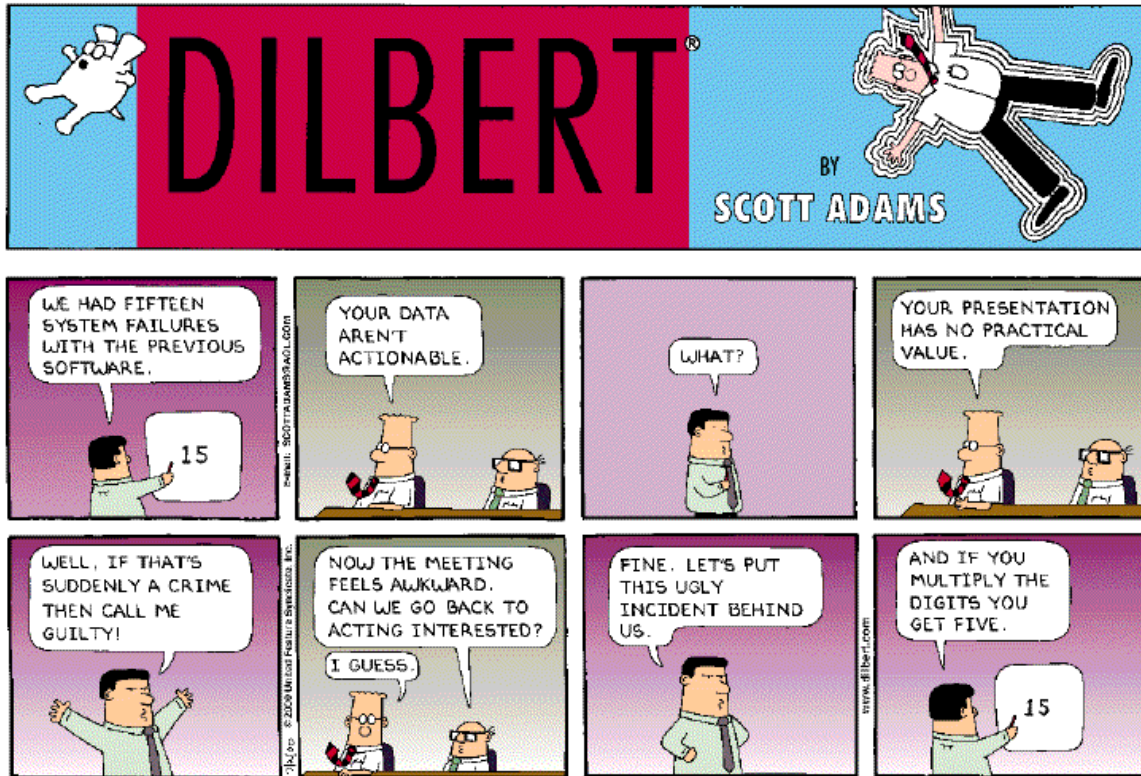
- The U.S. Navy’s Third Fleet: “Look at the screen in front of you and tell me the most important action item you see for moving the U.S.S. Coronado to a new permanent berth.”
- IBM: “Look at the screen in front of you and tell me the most likely cause you see for the production quality problem we are addressing.”
- Motorola: “Look at the screen in front of you and tell me the most important issue you see that must be addressed by our future standards for satellite communication.
- D.C. Public School: “Look at the screen in front of you and tell me the most important attribute of greatness demonstrated by Supreme Court Justice Thurgood Marshall.

What’s in a Name?

We call this thinkLet FastFocus because...well...because it’s faster than other convergence techniques, and because it helps the team focus on just the key issues that are worthy of further attention. We’d like to have

a humorous anecdote or a clever metaphor here, but we don't. Sorry. So, here's a Dilbert cartoon to make up for it.

<Cartoon/Drawing with Gun sight aiming at a piece of brainstorming paper in which a particular idea is enlarged.>



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OneUp

Choose this thinkLet...

- ... to converge on high quality results under time pressure.
- ... to surface the criteria for judging the quality of ideas as you converge on the ideas.
- ... after a brainstorm and before organization and evaluation.
- ... when the problem is murky and not well understood.

Do not choose this thinkLet...

- ... if a thorough discussion of each idea is required. Try using a FastFocus or Evolution thinkLet instead.
- ... if you do not need to know evaluation criteria. Use a FastFocus thinkLet instead.

Overview

In this thinkLet, you converge on the best ideas and simultaneously develop criteria for evaluating them. Participants identify increasingly high quality ideas, while explaining why they are better than any of the previous ones. The explanation yield valuable information about the way to the evaluate the identified ideas.

Inputs

A set of brainstorming comments.

Outputs

A short list of key items worthy of further attention.

How to use OneUp

Setup

- 1 Leave the participants in the tool where they brainstormed their comments.
- 2 Open a public list in any list building tool, e.g. Categorizer or Vote, and prepare to add key items.
- 3 Open a private list in Categorizer and prepare to add criteria for evaluating items.

Steps

- 1 Say this:
 - a Please look at the brainstorming comments in front of you on your screen.
 - b In a moment I will call on each of you in turn.

- c The first person I call on will tell me the most important item represented in the discussion on his or her screen. I will post it on this list.
 - d From then on, when I call on you, you may suggest another item for the list.
 - e However, the ideas you offer must be better in some way that the ideas that are already on the list.
 - f You must offer both the idea, and the argument about why it is better than the previous ideas.
- 2 As people offer items for the public list, discuss them, reframe them for clarity and brevity, and post them on the public list.
 - 3 As people offer arguments about why an idea is better than the existing ideas, abstract a criterion for judging idea quality, and post that on your private list. Later you can refine and condense those criteria and use them in moderated discussions or in a MultiCriteria thinkLet.

Insights on OneUp

When time is of the essence and a team must converge quickly from a mass of brainstorming comments to a short list of high-quality items, OneUp is a good choice. With OneUp the group only needs to discuss ideas that are better in some way than the ideas they've already discussed. That really cuts down on unnecessary conversation. With OneUp the team generates evaluation criteria on the fly. That speeds up any subsequent evaluations. With OneUp only the best ideas make the short list, which can cut evaluation and decision times. It's a win all the way around.

The only pitfall for OneUp is that the group may overlook some golden nugget lying in the gravel of their brainstorming comments. If it is more important to be thorough than to be fast, consider FastFocus or perhaps even an Evolution. With FastFocus you can be sure that every comment has been considered by at least three people on the team. With Evolution, you can be sure that every brainstorming comment has been considered by the whole team.

If the team used a FreeBrainstorming thinkLet to do their brainstorming, each of them will have a different set of comments on their screen during OneUp. After the first round of contributions, have participants swap pages and see if anybody finds anything new to add to the list.

This thinkLet combines the magic of the FastFocus thinkLet with the magic of ComparativeBrainstorm. Read the Insights sections of those thinkLets to enrich your understanding of the value this one can bring to a group.

OneUp Success Stories

We worked with a large consulting firm that was suffering unexplained difficulties in meeting its commitments to its clients. The symptoms were severe but the causes were not clear. The team decided to try backing into an understanding of the problem by proposing and then challenging a set of solutions. They started with a FreeBrainstorm, on the question “*How can we guarantee better performance for our clients?*” Then they moved to a OneUp convergence. With each solution proposed, a team member had to argue why the solution was better than any previously proposed. The group captured a list of criteria for judging the quality of solutions. From that they inferred a set of causes. They took several days to collect information to verify those causes and then we convened to develop more specific solutions.

What’s in a Name?

OneUp is so named because each team member tries to “One up” the previous team member by contributing a better idea from among the brainstormed comments.

BucketBriefing

Choose this thinkLet...

- ... to remove wordiness, redundancy and ambiguity from comments in categories.
- ... to convert categories of brainstorming comments into categories containing concise, non-redundant, unambiguous lists of concepts.
- ... after a PopcornSort or a Decorate-the-Christmas-Tree.

Do not choose this thinkLet...

- ... if a rough organization of comments and ideas is sufficient for the task at hand.

Overview

In this thinkLet you divide brainstorming comments among subteams, and have each subteam clean up and converge their set before reporting back to the group.

Inputs

Categories containing unedited brainstorming comments.

Outputs

Categories containing a concise, non-redundant, unambiguous list of concepts.

How to use BucketBriefing

Setup

Post the categories and brainstorming comments in Categorizer or Group Outliner.

Steps

- 1 Divide the categories among the available team members
- 2 Depending on the number of categories ask the subgroups either:
 - a to write summarizing statements about the contents of each category for which they are responsible, or
 - b to conduct a Concentration thinkLet within each category for which they are responsible.
- 3 Ask the subgroups to present and explain the results of their efforts to the whole group.
- 4 Make any adjustments requested by the group.

Insights on BucketBriefing

BucketBriefing is an alternative to the BucketWalk thinkLet. In BucketBriefing different sub-teams work on different categories in parallel. In BucketWalk the whole group works on each bucket together. So, BucketBriefing may cut down on the grind of cleaning up the concepts in categories. When you all work side by side, the work gets done faster. It is also just good for team spirit to periodically work in smaller sub-groups. Not every set of categories needs to be cleaned up. Sometimes it is enough to simply sort ideas into categories, and move on. Ask yourself the question before you jump into this thinkLet, "Why do I need a clean, summarized list in each category? If you have a good answer, plow ahead. If not, forget it.

You may have more buckets than people. In that case, cluster people by twos and threes, and assign a certain number of buckets to each group. You may have more people than categories. Just divide up the people into one team for each category.

BucketBriefing Success Stories

[SUCCESS STORIES TO BE PROVIDED BY BILL BECKER]

What's in a Name?

BucketBriefing is so named because people clean up the categories (buckets) in sub groups, then brief the whole group on the results. Pretty clever name, eh? Well, it's more clever than MashedPotatoes. How easy would that be to remember.

DimSum

Choose this thinkLet...

- ... to integrate the thoughts of many people into a single statement or a single definition for a key term that all participants can accept.
- ... to overcome an impasse caused by polarized interests about the wording of a joint statement.

Do not choose this thinkLet...

- ... to develop a diverse collection of concepts.
- ... when an acceptable statement or definition already exists.

Overview

In the DimSum thinkLet, the team works to express some thought or concept, precisely, in a way that all understand, and in a way that accommodates the interests of all team members. DimSum is useful in many settings, for example:

- Drafting a mission statement.
- Defining key terms in a project plan.
- Negotiating the language in a contract.
- Negotiating the terms of a treaty.

Inputs

None.

Outputs

A single statement or definition that all participants can accept.

How to use DimSum

Setup

- 1 Open a single page in, for example, Topic Commenter or Categorizer, to which all participants can contribute simultaneously and anonymously.
- 2 Comment numbering turned on.

Steps

- 1 Say this:
 - a Each of you please draft a sample version of this statement and submit it to the group. In a few minutes, we will review the concepts that emerge.
- 2 Participants draft and submit sample statements.

- 3 Prepare to draft a joint statement in full view of the team. Say this:
 - a Review all the statements submitted by your team. What do you see there that you like? Do you see any useful words or phrases we could use in our joint draft?
- 4 Moderate an oral discussion. As team members comment on useful turns of phrase, assemble them into a joint statement. Invite comment on the joint statement as well as comment on the sample statements.
- 5 If the team arrives at an impasse over the wording of some phrase, collect another round of sample drafts for just that phrase.
- 6 If the impasse persists, move the sample drafts to an anonymous polling activity. Discuss the results using the Crowbar thinkLet.

Insights on DimSum

DimSum can significantly speed the negotiating of mutually acceptable wording for joint statements. The magic of DimSum for a harmonious group lies in rapidly developing a variety of approaches to expressing a significant concept, and then drawing from the best words and phrases to arrive at a final draft. In harmonious groups DimSum can cut the time required to draft a joint statement to less than $\frac{1}{4}$ the time required by other means. The quality and clarity of the resulting statement tend to be high. In a badly conflicted group, like a labor-management contract negotiation team, can be paralyzed by suspicion. Labor may automatically reject any offer from management because if it is offered by management, it must, by definition be bad for labor. Management may likewise reject any offer from labor because it must, by definition, be bad for management if it is proposed by labor. The magic of DimSum for a group in conflict lies in the anonymity of the sample contributions. Because nobody knows for sure which contributions were contributed by which interest group, people can consider the merits of a phrase in light of their own interests, without the certainty that there must be something that will hurt them hidden in it because it was contributed by the other side.

Success Stories

Contract negotiations at a major bus company in the United States broke down, and the drivers went on strike. For the next three weeks, the negotiators made no progress, and tensions rose on the picket lines. The negotiation team decided to try DimSum. They moved to a meeting with two projection screens. On the left screen, they projected one paragraph of the expired contract. On the right screen, they displayed the results of a collaborative comment tool. Any contribution made by any negotiator appeared immediately on the screens of all the other negotiators, and on the right-hand screen. An equal number of negotiators from each side participated in the DimSum Activity.

Progress was fast on many paragraphs, but it stalled again when the negotiations focused on job security issues. When they were not able to

agree on a paragraph, they began using DimSum on sentences. When they could not agree on sentences, they began using DimSum on phrases. When they could not progress on phrases, they began taking sample phrases into a polling activity. Some of the phrases received approval from 75 % or more of the negotiators, which made it clear that the phrases must have support from people on both sides of the table, that the phrase was not a clever trick by one side to hurt the interests of the other side. The negotiation began to make progress once again. At certain points in the process, the team had to DimSum and poll to reach agreements on single words, but progress continued, and the negotiators arrived at a contract they all could accept.

What's in a Name?

In Hong Kong, in San Francisco, and in many other cities around the world, there are Dim Sum restaurants that serve delectable Chinese delicacies. In a Dim Sum restaurant, servers push little carts among the tables. Each cart offers small servings of a different treat. Diners choose what ever appeals to them as the carts pass by. In like manner, in the DimSum thinkLet, team members select the best phrases from the sample texts as they pass by.

ThinkLets for convergence – Filter

Pin the Tail on the Donkey

Choose this thinkLet...

- ... when a group has generated a lot of commentaries (100 – 400 and more) on a set of ideas, proposals, plans etc.
- ... to build shared understanding within a group on some key commentaries and discussion issues.
- ... to avoid going through each comment with the group separately, but focus on perceived highlights only.

Do not choose this thinkLet...

- ... to arrive at an 'agreed-by-all' summarization of a discussion. Pin the Tail on the Donkey is not a way to get to a summary of what the group finds important. Use FastFocus for this purpose. (Pin the Tail on the Donkey may be used to prepare for a FastFocus though).
- ... to determine the most important elements from a commentary. Pin the Tail on the Donkey is meant to enhance shared understanding on issues that *individual* group members find key. If you need the *group's* perception on what the best elements in a commentary are, use the BroomWagon thinkLet, possible after Pinning the Tail on the Donkey.

Overview

In this thinkLet you mark ideas as worthy of further attention. The Pin the Tail on the Donkey thinkLet is appropriate in situations where a group has generated a large commentary on ideas, propositions, proposal etc. During a plenary discussion, it is very costly to consider each comment individually. It takes too much time. With Pin the Tail on the Donkey you can let group members “pin” icons or markers on any contribution they consider key. These ‘gems’ will be brought to the table during a plenary discussion. You can help people create shared understanding regarding their own key issues. This will facilitate subsequent summarization exercises, such as FastFocus or BucketBriefing.

Inputs

A large amount of commentary contributions from group members in reaction to ideas, propositions, proposals and so on.

Outputs

- 1 Identified key commentaries.
- 2 Shared understanding on key commentaries.

How to Pin the Tail on the Donkey

Setup

- 1 Participants may view comments in Topic Commenter, Electronic Brainstorming, Categorizer, or GroupOutliner.
- 2 Moderators allows participants to read comments and add annotations.

Steps

- 1 Say this:
 - a We have elaborated on the issues at hand extensively and created a lot of comments. Let's now zero in on some of the key comments and discuss these plenary.
 - b I like you to go through the commentaries and pin an annotation to comments that you feel are key, that sparked you, that made you think, that changed your perception on the issue at hand, or that best summarize a number of commentaries.
 - c The contents of the annotation itself is not important; just make sure a 'pin' appears in the margin of the comment.
 - d You may only add X annotations.
- 2 The group reads through the comments and places their annotation pins.
- 3 If the group is almost done placing their annotation pins, invite them:
 - a Please skim through the comments and check out the ones that are 'pinned'. We will discuss these plenary in a few moments.
- 4 After the group has placed their annotation pins and read the highlighted comments, facilitate an oral discussion during which you invite people to explain why they felt certain comments were key.

Insights on Pin the Tail on the Donkey

Using Pin the Tail on the Donkey, your group will start reading through extensive discussions, pinning key comments as they goes. It's a very effective technique to limit what people bring to the table. Hence, Pin the Tail on the Donkey helps you to bring focus into the plenary discussions and make them efficient. The pinning process is usually fast. People often know where to place the annotation pins because they have been reading most material during the brainstorming activity that preceded.

The magic of Pin the Tail on the Donkey. What is it that makes this thinkLet work well? The trick really consists of three elements:

- *Visual appeal.* The pin that shows up in the margin is a very powerful way of drawing someone's attention to a particular comment. At the same time, the comment is not taken out of its context. Preceding and referring comments can still be read, if necessary.
- *Pet comments get attention.* Pin the Tail on the Donkey allows the group members to bring forward their pet comments. Everyone can have the issues discussed that they want the whole group to consider. No majority votes are required. As a result, people get motivated to hand out pins and discuss the issues at hand.
- *No sidetracking.* The plenary discussion on the pinned comments seldom gets sidetracked. First of all, because you will focus the group on these comments, of course! Most of all, however, because people had a chance to indicate their personal preferences and therefore have an interest in making sure the interactions stay focused on the pinned issues.

A practical note. When you're using Pin the Tail on the Donkey, there is one issue that you should beware of: People cheat! After letting a group pin annotations on comments, you will often find that there are more pins than you asked to group to do. The solution is easy: Think of how many comments you want to group to pin, and then ask them to do about 20 percent less. If things really go out of hand, tell the group you will place a time limit on pinning comments and invite different people to start at different places in the collection of comments to ensure that all parts get equal attention.

Pin the Tail on the Donkey Success Stories

We once facilitated a workshop with a large European insurance company. The company had to prepare itself for the introduction of the Euro currency. This had all kinds of consequences regarding the pricing and financial conditions of their damage policies. The workshop started with a number of case studies in which the group members had to make a decision on how to convert the pricing in their national currency to a Euro pricing. Each case received extensive commentaries concerning the pros and cons of various transition procedures. In total, the group generated close to a 150 comments over 5 cases.

We then asked the participants to pin 5 comments, one in each case. Participants did so in 10 minutes. In each case situation, between 4 and 6 comments were pinned. The subsequent plenary discussion helped all participants to understand key arguments in each case study.

The group used these insights to select a transition procedure to go from their national currency to Euros using a simple 1-pick Multiple Selection Straw Poll. The remainder of the workshop was spent generating issues that had to be addressed before this transition procedure could be implemented.

What's in a Name?

Pin the Tail on the Donkey is a children's game, often played on birthday parties. A drawing of a donkey with no tail is placed on a wall or a piece of softboard. Children are blindfolded, and receive the donkey's tail with a pin. The purpose of the game is to try and place the tail exactly in the right place on the donkey. With the Pin the Tail on the Donkey thinkLet, the purpose is that you let participants pin the most interesting tails (comments) on the available donkeys (ideas, proposals, plans etc.)

Before:



After:



BroomWagon

Choose this thinkLet...

- ... if your group has generated a large number of items (50 – 300) and you need them to quickly focus on the key items only.
- ... when you want to avoid / it is not necessary that the group analyses each item in detail.
- ... when choices are largely a matter of preference.

Do not choose this thinkLet...

- ... when you need to arrive at a final list in which each item is evaluated carefully. For this, you need to use an Evaluate thinkLet. BroomWagon just provides a first pass to help a group converge on a number of issues.
- ... when you need the group to make a decision, e.g. pick the three most important courses of action. BroomWagon is not suited for decision making, only for separating key issues from the other issues.
- ... when rational analysis should supersede preference.

Overview

In this thinkLet, you quickly filter a set of brainstorming ideas to zero in on the ones worthy of further attention. When you deal with a group facing many issues, items, or ideas, use BroomWagon to sieve out the items on which the group needs to focus. BroomWagon allows you to let the group converge from an unmanageable number of items to a manageable number. BroomWagon could be used to winnow some of the chaff from the wheat before trying to polish or make sense of the items contributed during a brainstorming activity.

Inputs

A large set of items, e.g. the result of a FreeBrainstorm or a ComparativeBrainstorm activity.

Outputs

A smaller ordered set of items that the group agrees are worth more attention.

How to use BroomWagon

Setup

- 1 Participants view the list of items in Vote.
- 2 The facilitator selects the Multiple Selection voting method and allows group members to select between 20 and 33 percent of the total number of ideas. For example, if the main lists consists of 47 ideas, the group may select up to 15 ideas.

Steps

- 1 Say this:
 - a We have a long list of brainstorming items here that we will sift before we begin working on refining them in more detail.
 - b Read through the items on the list and check the ones that you think merit more attention.
 - c I have given you X checkmarks, so you can only check X items. Once you run out of check marks, you'll have to uncheck an item before to check another one.
- 2 Let the group vote and display the results on the public screen.
- 3 Focus everyone on the results, saying:
 - a Let's look at the results. There are a number of items that got few or no votes. Let's remove these from the list as they appear to be less interesting than the other ones.
 - b Let's vote again now. I will give you Y checkmarks. Please check the items that you feel merit more attention.
- 4 Repeat this process until you end up with the maximum number of issues that you want to handle from that moment onward. Normally, you achieve this in about 2-3 iterations depending on the length of the original list.

Insights on BroomWagon

BroomWagon is an effective way to trim down a long list of items to a short list. Groups like the process because it easy to understand and carry out. And it normally takes only about 15 minutes to come down from 200 ideas to about 15 – 20. The key to it's success lies in BroomWagon's low cognitive load for the group members and the number of checkmarks used.

Low cognitive load. BroomWagon is a great way to have people go through long lists of ideas. People do not have to consider each idea in detail and act upon that. They only have to tick the few ideas they like. Imagine having to evaluate 50 ideas on a 7 point scale versus just ticking off the 15 ideas you want to consider in more detail. The latter activity results in a much lower cognitive load and increases the pace of the convergence process.

Number of checkmarks. A key characteristic of BroomWagon is the number of checkmarks that you give the participants. You should give them enough marks for the good stuff. But you shouldn't give them too many as it then becomes likely that every item will receive at least one vote. This will make it more difficult to broom items off the list.

We found that different facilitators have different rules of thumb for deciding how many checkmarks to give each person. The lowest we've seen is 20% of the items. The highest we've seen is 33%. Just pick a number that seems to suit you and the situation and see how it goes.

At this point you may think that BroomWagon is a really easy and neat way of focusing a group. However, sweeping those ideas off the list does not always come easy or neat. There are various pitfalls you have to avoid. These are the most common ones:

- *"We can't vote on this list, the ideas are not clear."*
Sometimes people protest at the start of the BroomWagon. It may be they did not have enough time to familiarize themselves with the ideas on the list. It may also be that they want to influence the outcome of the BroomWagon by presenting their preferences during an oral discussion. In these situations, you may quickly walk-through the list asking people to identify items that are not clear and have someone explain them. Alternatively, you may perform a Lobbyist thinkLet just before inviting people to vote.
- *"I cannot pick enough items, there're too many that are important."*
Some people have difficulty focusing and distinguishing between really important items and less important items. The way to handle this situation is explaining that there really are only limited resources available to do deal with every list item. You may offer this person a more methodical approach: *"Start with the single most important item on the list. Mark this. Then mark the single most important item of what remains. Please place your checkmarks in this order."*
- *"Hey, every item received about the same number of votes. Now what?"*
On rare occasions it may happen that every item on the list received a similar number of votes. Hence, you have no clue which items you can remove. The problem may be that people all voted for their own pet ideas. You can easily solve this by handing out more checkmarks so that they get past their own pets and select some other ideas.
- *"You can't remove *that* idea, it's the best on the list."*
At various times, people find it difficult to accept their pet idea being swept from the list. They start protesting, trying to hold on to the idea. If the group agreed to remove all items with less than a certain number of votes, you may recall that agreement. You can also suggest that the item remains on the list on one condition: If it

does not receive enough votes in the next iteration, it's out, no discussion. Alternatively, you may start the Lobbyist thinkLet to give every participant equal opportunity to promote their pet idea.

When you're using BroomWagon, there are a number of other things you have to bear in mind. BroomWagon may work better on a 'clean' list of ideas, it does not organize or prioritize ideas, the group's voting pace may slow down, and you must establish process rules.

A 'clean' list of ideas. Remember that if you send raw brainstorming ideas to a vote, the list is not cleaned up. There are undoubtedly redundancies and ambiguities in the list. So, if a certain issue is appearing half-a-dozen times in various forms in the list, people may spread their votes across those items. During the early iterations of BroomWagon this is not a problem. But later on in the process, it may become hard to sweep items off the list based on the voting results. To deal with this, you may decide to perform a very quick Concentration thinkLet before or half way through the BroomWagon exercise.

You won't get an organized or prioritized list. BroomWagon will only separate key issues from less important issues. It will not help you to organize a list into several categories, nor will it let you walk away with a finely tuned order of ideas. If you need to get an organized list, consider doing one or two rounds of BroomWagon followed by an organization thinkLet such as a PopcornSort or a ChauffeurSort. If you need to establish priorities between ideas, consider a StrawPoll or MultiCriteria.

The pace may slow down towards the end. The first iterations of the BroomWagon process will be fast. At this stage, it's much easier for people to drop ideas. However, during later iterations, their pet ideas may start receiving some heat and decisions to include or exclude an item on the list may get hard. To keep the pace going you may jokingly stimulate the slower participants saying:

"Remember that the last person to submit his or her vote will have to pay for the refreshments during the next break!"

Establish process rules. During a BroomWagon exercise, some painful moments may occur. People may protest against getting rid of some ideas, people may challenge the number of checkmarks they get, etc. It is therefore important to establish appropriate process rules before engaging a BroomWagon exercise. We suggest such process rules as:

"The group consists of 9 people. Let's say that each idea that receives 3 votes or less is dropped from the list."

"We have 258 ideas here. In the remainder of our workshop, we will deal with 12 at most. So let's iterate until we have identified the 12 top key issues."

BroomWagon Success Stories

BroomWagon has been used hundreds of times with groups all around the world. It's easy and effective. It turned out to be a big success in a workshop in the Port of Rotterdam, the Netherlands, the largest harbor in the world. Here a conglomerate of harbor parties was discussing future e-commerce initiatives. The group generated about 75 project ideas 25 minutes. They wanted to elaborate about 10 ideas in terms of a project plan description. The Broom Wagon procedure was used for 15 minutes including three iterations. 9 Project ideas were selected and subsequently worked out in more detail.

What's in a Name?

A BroomWagon stalks the cyclists during the "Tour de France". During each stage of this annual three week cycle event, cyclists are followed by a big truck. This truck, the BroomWagon, will "sweep" up every cyclist that cannot maintain a pace fast enough to make it to the end of the stage before the deadline. Also, cyclists that are too tired get off their bike and wait for the BroomWagon to pick them up.

GoldMiner

Choose this thinkLet...

- ... to sift through many contributions to a brainstorming session and set aside those worthy of further attention.
- ... when it is important to give every team member the opportunity to raise issues for further discussion.

Do not choose this thinkLet...

- ... when it is important to consider ideas in the context of the discussion where they were generated

Overview

In the GoldMiner thinkLet, team members read through their brainstorming comments, and when they find a “nugget,” they pick it up and move it into a holding area for future discussion.

Inputs

Many unstructured brainstorming ideas.

Outputs

A collection of out-of-context brainstorming comments that suggest concepts worthy of further consideration and development.

How to use GoldMiner

Setup

- 1 Move the brainstorming results from a divergence thinkLet into one Categorizer bucket. Label the bucket, “Gold Mine”.
- 2 Create an empty bucket and label it, “Fort Knox”.

Steps

- 1 Say this:
 - a This bucket is our gold mine. Buried among all these brainstorming ideas are some gold nuggets. Gold nuggets are those concepts and ideas that so important, and so valuable that we must give them further attention.
 - b Read through the comments in the gold mine, and when you find a nugget, click-and-drag it into the Fort Knox bucket. Fort Knox, Kentucky, is the place where the U.S. Government keeps all its gold reserves. We are going to put all our most valuable ideas into the Fort Knox bucket.

- c Remember, we don't have time to address all these topics, so look for the very best, the very most important, the most valuable. Find the nuggets and put them into Fort Knox. Any questions?
- 2 Release the group to begin mining for gold.

Insights on GoldMiner

This thinkLet is very useful way to converge when you have a group of people who do not necessarily share the same vested interests, nor the same power and influence. This thinkLet assures that every member of the team can elevate a concept to gold nugget status and have it addressed by the team. This technique makes it harder for one faction to prevent discussion of a difficult issue being raised by another. GoldMiner is a fast way to converge, but it has limitations compared to other thinkLets. Although the nuggets are collected, unlike a FastFocus at the end of a GoldMiner the ideas have not yet been discussed aloud. Therefore the group will not have the confidence that they have established shared meaning around each of the issues. It will therefore be necessary to follow up with another thinkLet like ReviewReflect that allows the group to create shared meaning. Unlike a BroomWagon, the converged concepts in GoldMiner are not prioritized at the end of the thinkLet. Therefore, if there are more nuggets than the group has time and attention to address, it may be necessary to follow up with a StrawPoll and possibly a Crowbar to prioritize the concepts before processing them.

GoldMiner Success Stories

The government of a medium-sized city in the United States was having difficulty finding a location for a new landfill. No matter where they tried to locate the landfill, some powerful interest group would object. The city called together 40 representatives from about 25 stakeholder groups to address the issue. The group began with a FreeBrainstorm divergence on the question, "What issues must the city consider when choosing a site for the new landfill?" They produced more than 600 comments. Then the group conducted a GoldMiner thinkLet to identify the most important issues. The moderator qualified the usual instructions by adding a TopFive cycle, saying, "We want to be sure that this group addresses the most important issue of every stakeholder here. Therefore, to start, each of you may move exactly one nugget from the Gold Mine to Fort Knox. We will address those issues first. As time permits we will return to the gold mine and dig out more nuggets. But to start, everybody is permitted only one nugget, so make it your most important issue." The team identified 40 comments as Nuggets. Using a RichRelations thinkLet, the team converged the 40 comments down to 12 key issues. That became the jumping off point for a win-win negotiation on placement of the landfill.

What's in a Name?

In a gold mine there may be a fraction of an ounce of pure gold in a ton of ore. A gold miner must find a way to sort out the gold. In like manner, a brainstorming activity can produce many comments, but it may be that only a few are worth preserving and elaborating. Hence, the team needs a way to pick out their gold from among all the comments. We therefore named this thinkLet, GoldMiner.

ExpertChoice

Choose this thinkLet...

- ... when a group feels uncomfortable or is unqualified to organize a set of ideas into categories.
- ... when a group does not have enough time to organize a set of ideas themselves.
- ... if you have someone available that is qualified to organize the ideas.

Do not choose this thinkLet...

- ... if you expect that the expert's choices are likely to be heavily disputed by the group.

Overview

In this thinkLet, the group appoints someone to organize a list of ideas and present the resulting structure to the group. The expert basically takes a list of ideas from the group and organizes them into categories or a hierarchical tree structure. The group may or may identify the final structure beforehand. Isn't it nice to let other people do the work? ExpertChoice let's you do exactly that.

Inputs

- 1 An unstructured list of ideas.
- 2 Possibly a target structure for the ideas to be organized into.

Outputs

Structured set of ideas in terms of categories or branches in a tree-structure.

How to use ExpertChoice

Setup

For Expert:

- 1 Expert can see ideas in Categorizer or GroupOutliner.
- 2 Moderator allows expert to define buckets (Categorizer) or branches (GroupOutliner) and move ideas into buckets or under branches.

For Participant:

- 1 Participants can see ideas in Categorizer or GroupOutliner.
- 2 Moderator allows participants to move and edit ideas.

Steps

- 1 The participants have generated a list of ideas and have expressed a desire that someone else organizes them.
- 2 Say this:
 - a Does anybody have any suggestions who is going to organize these ideas for us?
- 3 The group selects an expert.
- 4 If the organization of the ideas can be done in, say 15 minutes, call for a break. If it may take much longer, adjourn the meeting and plan for a new one.
- 5 Let the expert organize the ideas. If the group has suggested a structure in terms of categories or a hierarchical tree, let the expert use this. If not, the expert will suggest a structure as well.
- 6 Present the results to the group or let the expert do this.
- 7 Point out difficulties that occurred during the organization activity, e.g. ideas that were unclear, ideas that could not be placed into the pre-defined structure, or ideas that could fit in more than one category.
- 8 Let the group react to the organization outcomes, saying:
 - a What do you think of the results?
 - b Are there any changes that you would like to make in the organization structure?
 - c Are there any changes that you would like to make regarding the placement of ideas?
- 9 If there are any changes that have to be made, let the group carry them out themselves.

Insights on ExpertChoice

Sometimes is just easier to delegate some work to other people. Groups too feel that way. Too bad that most group work cannot be delegated. If it could be, the group probably would not have been assigned to it. With ExpertChoice, however, you can let the group select someone that they can delegate the organization of ideas to. Not surprisingly, often you, the facilitator, are picked to perform this expert role. But also outsiders can be invited to provide their expert opinion on the structure of and relationships between ideas.

By the way, ExpertChoice may occur by mere chance. It may happen that you do not plan an ExpertChoice, but the group decides on it during a meeting. And they appoint the most obvious expert: you!

Magic moments. There are some situations in which ExpertChoice works very well:

- In a series of meetings where the expert has plenty of time in between meetings to organize ideas.
- In situations where an expert knows more about the subject matter than the group itself. For example during a requirements definition

process, where an expert can often combine issues and ideas that the group doesn't realize are related.

- When the results of a group brainstorm have to be presented to a larger audience, having an outsider trying to make sense out of the generated ideas helps to identify contributions that are not clear enough. In such instances, ExpertChoice helps the group to sharpen their thoughts.

When performing an ExpertChoice make sure that you avoid the following pitfalls.

Disputed expert. You must be sure that the expert that is selected is an undisputed person with the group. If you end up with a contended person as expert, his or her proposed organization of ideas is likely to be unacceptable. As a result, you will have to let the group do the organization activity themselves anyway. And if you wanted that all along, you hadn't chosen ExpertChoice, right?

No done deals. Remember that an expert only suggests an organization of ideas to the group. It is not a done deal. Participants may reject the expert's choices altogether if there is no room for discussion and modification. So make sure you always allow some room for debate.

After carrying out an ExpertChoice, you may want to follow it up with a diverging thinkLet such as a Comparative Brainstorm to add more ideas to the structure, or perform a convergence thinkLet such as BucketWalk to clean the structure up. If you want to do a thorough review of the structure, you may consider a process similar to the DocumentReview process.

ExpertChoice Success Stories

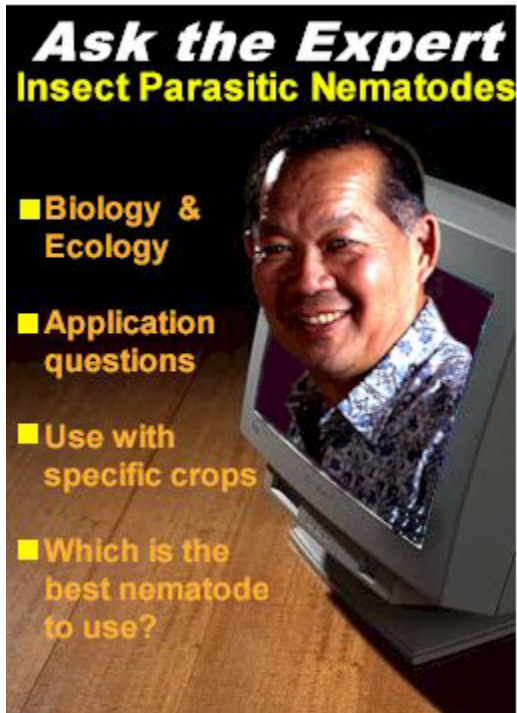
A large educational institution had brought together a group of people that were going to discuss the institution's Internet strategy. The group had to recommend policies and action items to the board of institution regarding the way in which the Internet should be used and a presence on the Internet should be shaped. The group was going to meet over the course of four weeks, with a two electronic workshop once a week.

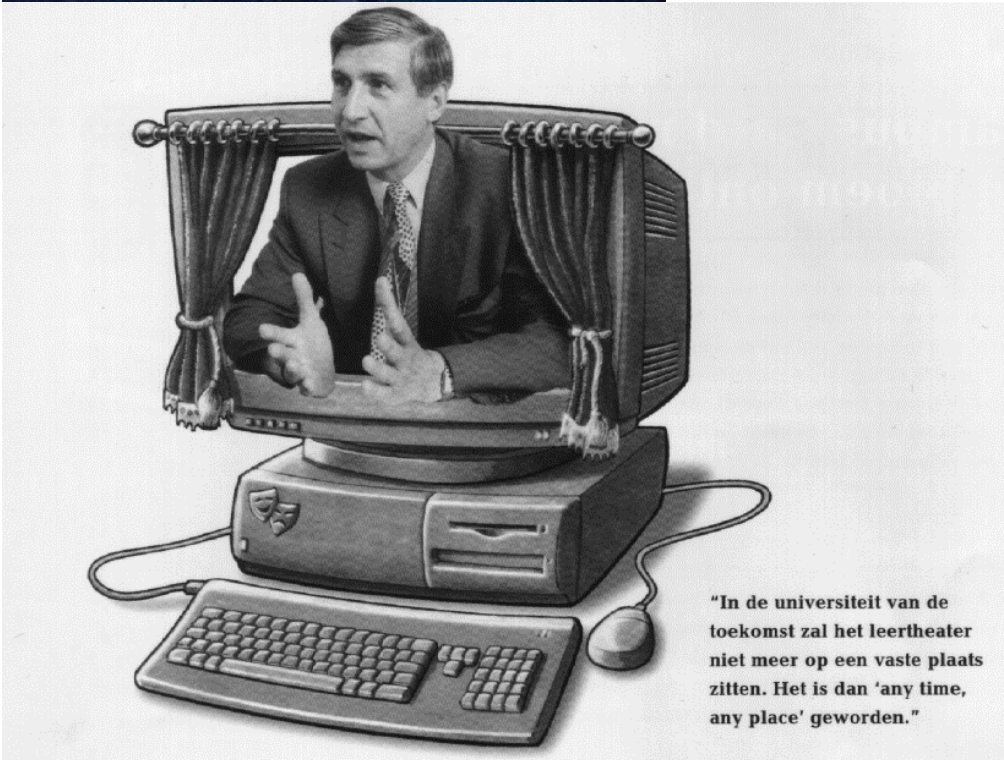
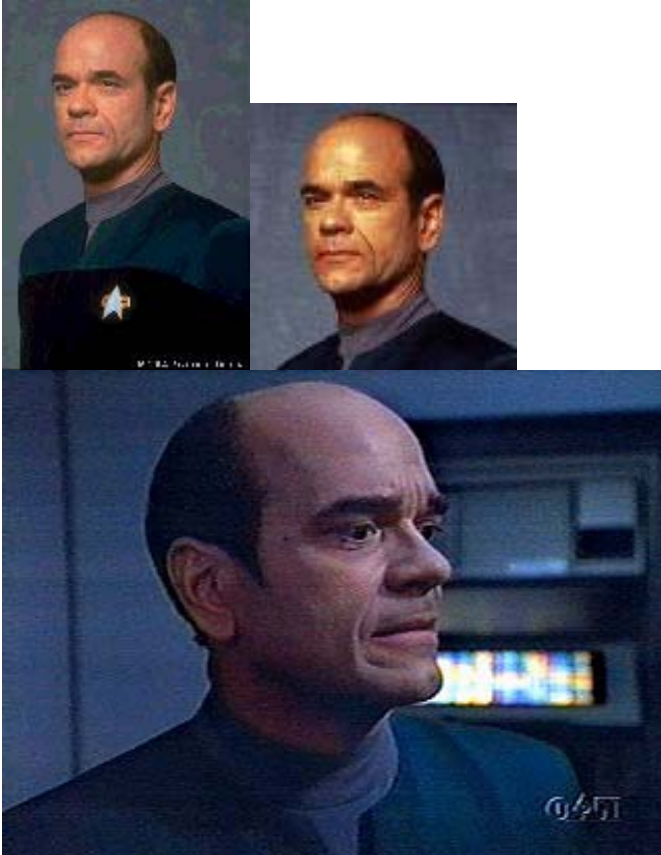
During the first week, the group brainstormed on all the issues that they like to discuss. This resulted in about 175 issues. Based on the rough output, we performed the ThemeSeeker thinkLet and established 7 categories. The group decided that we would be the organizers of the results so far. So during the time between the first and the second meeting, we organized the 175 issues into the 7 categories.

We kicked off the second meeting presenting the organized ideas to the group. The moved a few ideas to other buckets and then consented with the outline. The remainder of the session and subsequent sessions were used to address each category in depth.

What's in a Name?

ExpertChoice is called ExpertChoice because, well, an expert makes the choices. Which is always better than organizing a bunch of ideas at random.





"In de universiteit van de toekomst zal het leertheater niet meer op een vaste plaats zitten. Het is dan 'any time, any place' geworden."

GarlicSqueezer

Choose this thinkLet...

- ... if your group has generated a large number of reactions (e.g. 150 or more) to a structured set of ideas or topics, and the essence of the reactions have to be filtered out quickly.
- ... when a group does not have enough time or competence to filter the reactions themselves.
- ... if you are working with a knowledgeable colleague that can help you.

Do not choose this thinkLet...

- ... if you expect that the filter results are likely to be heavily disputed by the group.
- ... if the follow-on activity requires a careful filtering and discussion of each reaction.

Overview

In this thinkLet, the facilitator together with one or two experts summarize the results of a bigger brainstorming activity. When you present an engaged group with a list or tree structure of topics or issues to comment on, you are likely to end up with a large number of reactions and comments. Now what? Sometimes you want to focus on only a few real key comments. In that case, use the Pin the Tail of the Donkey thinkLet. Sometimes you just need to reduce the set of comments to manageable proportions before letting the group themselves zero-in on the key ideas. In that case, choose the GarlicSqueezer thinkLet.

Basically, with GarlicSqueezer you and a co-facilitator squeeze out the most relevant and representative comments from the total set. You start at opposite ends of the structure and work your way towards each other. Along the way, you ruthlessly delete, combine, re-formulate, or re-order comments to about a third of the original number. This yields a summary of the group's work that is still rich enough to facilitate follow-on in-depth discussions.

Inputs

A set of comments on a structured list or tree of topics or issues.

Outputs

A compressed set of comments within the same structure that represent the essence of the generated comments.

How to use GarlicSqueezer

Setup

For the facilitators:

- 1 Facilitators work on two stations that have access to the ideas and comments in Categorizer or GroupOutliner.
- 2 Facilitators can move, modify, and delete comments.

For a participant:

- 1 A fresh cup of coffee and some brownies.

Steps

- 1 The participants have finished commenting on a structured set of topics.
- 2 Say this:
 - a Let's discuss the main issues that emerged during your treatment of the topics.
 - b In order to make this discussion a bit easier, I propose that my colleague and I go quickly through all your comments and filter out those that are representative of the main issues you identified.
- 3 The group agrees and leaves the room for a short coffee break.
- 4 You and your colleague start at opposite ends of the structure and filter the comments:
 - a Look for comments that redundant or repetitive and delete these.
 - b Merge comments that address a similar issue together, or replace them by a summary.
 - c Don't think about each issue for too long. If you can't think of a summary quickly, then move on.
- 5 Get the group back into the room and present the results of your work, saying:
 - a We highlighted the key issues and concerns that you raised. Please understand that we had to make some calls as to what to include and how to phrase it.
 - b What do you think of the results?
 - c If you think some key issues are missing, please bring them forward.
 - d If you think we misrepresented the spirit of the discussion, let us know.
- 6 If the group requests changes, discuss and accommodate them during a verbal discussion.

Insights on GarlicSqueezer

The GarlicSqueezer thinkLet is similar to the ExpertChoice with you as the expert. However, with ExpertChoice you build and organize a structure of ideas. With GarlicSqueezer you summarize key issues so that it becomes easier for the group to get and keep an overview. You should aim for reducing the amount of information to about a quarter or a third of its original size. This thinkLet is especially appropriate when you are working with groups that have difficulty to take some distance from their own contributions and abstract.

In many meetings that you facilitate you may be assisted by a co-facilitator or chauffeur who operates the meeting technology. Having this colleague available creates an excellent opportunity to capitalize on the magic of GarlicSqueezer: Working together and towards each other as you squeeze the set of comments, you stimulate each other. It becomes like a race to get to the half-way point first. This is the pressure you need, because a 15-minute coffee break is over before you know it!

If you do not have a co-facilitator or chauffeur available, you may consider to invite one of the participants to help you out. However, you have to be careful that the group feels comfortable with this and that the candidate is competent enough to perform this activity. If the group is not comfortable with a squeezer from their own midst, you may want to consider a Pin-the-Tail-on-the-Donkey thinkLet instead.

When performing a GarlicSqueezer you have to avoid the following two pitfalls:

It's only a proposal. Remember that you only suggest a summary of the comments the group made. Participants may feel you did not convey the gist of the discussion they had. So make sure you allow some room for discussion and debate on the outcome of the squeezing.

Starting from scratch. If you know that the GarlicSqueezer is the next item on the agenda, you have to make sure that you keep reading along as the group is generating comments and reactions to the topic at hand. While reading, write down comment numbers of ideas that you feel can be deleted or should be given a central spot. If you don't read along, you'll have a harder time squeezing because you see everything for the first time. Reading along gives you a chance to think about the comments and incubate.

After carrying out a GarlicSqueezer, you may want to follow it up with a evaluation thinkLet such as StrawPoll to select the key thoughts for each topic. If you want a more thorough review of the discussion in each topic you may consider doing a FastFocus or BucketWalk thinkLet.

GarlicSqueezer Success Stories

We once facilitated a series of 12 sessions with a regional law-enforcement organization. The participants represented various hierarchical levels from the organization and came together to discuss the

difficulties involved in working flexible hours. The goal of the project was to enable broad participation in an effort to come up with alternative ways to make a flexible personnel planning.

We presented the participants with different perspectives on working flexible hours, like their situation at home, the demands of society, the framework offered by labor laws etc. During a session, participants consistently generated anywhere between 150 and 250 reactions (using the LeafHopper thinkLet) distributed over the perspectives. We would then send them for a 15-minute coffee break during which we squeezed out a summary of all their feedback. Upon return, they got a chance to briefly look through the results and then we did a StrawPoll to select the key contributions in each main perspective. The squeezing, reading, and StrawPolling together took about 1 hour. The results were subsequently used to formulate the group's position in the session report.

What's in a Name?

This thinkLet is called GarlicSqueezer as you approach the fruits of the group from two sides, push them together and make sure you are only left with the juicy stuff that makes it through your sieve. The rest of the fruits you put on the side for possible later use.

ThinkLets for convergence – Shared Meaning

ReviewReflect

Choose this thinkLet...

... when you must review, validate, and modify the content of an existing outline or other information structure.

Do not choose this thinkLet...

... when you need to generate an information structure from scratch.
Consider using the BranchBuilder thinkLet instead.

Overview

In this thinkLet you adapt an existing generic text to the needs of the task at hand, or you review and comment on a deliverable document. Some thinking tasks jump off from existing content. For example, a team in an automobile factory might begin a risk assessment by considering a list of standard risks for the automobile industry. The ReviewReflect thinkLet is a way to review and tailor the existing content into something more useful for the task at hand. The thinkLet proceeds in two passes. In the first pass, all participants review and comment on the existing content. In the second pass, the participants negotiate the re-structuring and re-wording of the content.

Inputs

Pre-existing content in the form of a list, outline, or other document.

Outputs

A revised document that more closely meets the needs of the task at hand.

How to use ReviewReflect

Setup

- 1 Post the existing contents in Group Outliner.
- 2 Configure Group Outliner so that double-clicking any node of the outline opens a discussion window to collect anonymous comments on that node.

Steps

- 1 Say this:
 - a Please read each heading of this outline and reflect about whether it is useful for our task.
 - b If you find something on the outline that does not apply to our task, click it open and explain why. If you notice that

- something important is missing from this outline, click open any heading and make a comment to explain.
- c When we are finished, we will revise the outline based on your comments.
 - 2 Allow all users to review, reflect, and comment on the outline simultaneously.
 - 3 Find an outline heading that has comments under it. Double-click it open to read the comments.
 - 4 Use a match-views capability to open the same comment window on the screens of other users.
 - 5 Say this:
 - a We got several comments on this heading of the outline. Would anybody care to propose a change to the outline based on these comments?
 - 6 Moderate an oral discussion. Revise the outline as directed by the group.
 - 7 Repeat steps 3 through 6 until all comments have been addressed.

Insights on ReviewReflect

This thinkLet gives you a real leg up on repeatable processes that begin with generic content that must evolve as the process unfolds. There are many such processes. Software engineers often begin the process of defining system requirements with a generic outline for organizing the user requirements. Product designers often begin with an outline of the desirable attributes of a product in their target niche. Military planners frequently start with packaged contingency plans that they adapt to the situation at hand.

The magic of ReviewReflect is that the focus stays directly on items requiring change. The conversation does not get cluttered with discussion of items about which everybody already agrees. All participants have a voice. Once the review is done, all the comments about a given item can be considered and resolved as a whole.

ReviewReflect Success Stories

We once worked with a group of 18 stakeholders on a software project for the State of Iowa to create a database that would be the master address list used by all state agencies. The stakeholders were software engineers, programmers, managers, and citizens. As a first step we presented the team with a generic 80-item outline that had the obscure academic name, “The M-Base Taxonomy of Software Engineering Negotiation Topics” (Boehm, et al., 199? Get exact name and reference from Gruenbacher). We told the stakeholders, *“There are a lot of different ways you can win in a software engineering project. Here is a outline of all the different ways there are to win in a software engineering project. Actually, this is not a list of all the ways there are to win. This is generic list. Some parts of it*

may not apply to our project, and there may be things that are important to our project that do not yet appear on this outline. Please read through it carefully. If you see anything that doesn't apply to our project, double-click it open and explain why in the comment window that appears. If you notice that something is missing from this outline, double-click open any item and explain what is missing." The stakeholders spent almost an hour reviewing the outline and made comments under about 15 of the 80 items. When they were done, we reviewed their comments, struck some things off the outline, added others, and re-arranged major parts of it to match the structure of their task. The resulting outline became the organizing structure for all subsequent requirements that emerged during the project. It also became a memory cue for the stakeholders. As they worked they checked to assure that system requirements were written for every heading on the outline.

What's in a Name?

ReviewReflect is so named because people use it to review and reflect upon existing content, to tailor it to the specific needs of the task at hand. In so doing, they come to understand both the content and their task more deeply.

ThinkLets for Organizing – Abstracting

Concentration

Choose this thinkLet...

- ... when a group has generated one or more lists of ideas some of which are redundant, ambiguous, or overlapping.
- ... when it is necessary to clean the list up, i.e. reduce redundancy, ambiguity, or overlap, for example because the ideas represent criteria to be used in a MultiCriteria activity.

Do not choose this thinkLet...

- ... if the next group activity does not require a cleaned up list. A PopcornSort, for example, can be done without a Concentration beforehand. A Concentration may be part though of a BucketWalk following the PopcornSort.

Overview

This thinkLet lets you guide the group through a structured process to organize many concepts and eliminate redundant and irrelevant information. Even the most littered brainstorming lists can be cleaned up by guiding the group to remove duplicates, combining ideas, and re-phrasing unclear ideas. Concentration engages people in a clean-up game that is motivating and effective at the same time. The thinkLet focuses the group interaction on list items that require attention, and stimulates additional discussion about these items. Hence, it enables increased understanding.

Inputs

A rough list of ideas, that contains overlap between ideas.

Outputs

A cleaned up list, i.e. a list in which duplicate ideas have been removed, ambiguous ideas have been re-formulated, and ideas that address similar issues or concepts have been combined.

How to use Concentration

Setup

- 1 Participants view the list(s) of ideas in Categorizer or Group Outliner.
- 2 Moderator allows participants to read ideas and comments.

Steps

- 1 Make sure the participants have the list in front of them that has to be cleaned up.
- 2 Say this:
 - a Before we can move on to the next activity, we have to clean up this list. There may be some overlapping ideas. Also, there may be some ideas that are not clear.
 - b We'll go as follows: If you see two or more ideas that you think are the same, please call out the numbers and we will see if we can merge them.
 - c If you see an idea that you do not understand, please let us all know the number as well.
 - d Who will take on the first one?
- 3 If a participant brings forward the numbers of similar ideas, say this:
 - a Please explain briefly why you think these ideas are similar?
 - b Shall we combine these ideas? Everybody agrees? If so, into which idea shall we merge the other(s)?
- 4 If a participant points out an ambiguous idea, say this:
 - a Please explain what you don't understand about this idea?
 - b Can someone explain this idea? Of course, you do not have to identify yourself as the 'owner' of the idea!
 - c Could you suggest an alternative phrasing?
- 5 Continue with this process until the group no longer suggests ideas for merging or rephrasing.

Insights on Concentration

Let's face it: brainstorming sometimes gives you pretty ugly results. People may just contribute about anything and at the end of the road you find yourself with a big heap of redundant and ambiguous ideas. If brainstorming is about breaking a group's discipline to move them to uncharted territory, then Concentration is about restoring discipline and getting all the topographical names on the map right.

Why does Concentration work? Why is redundancy resolved? Why is ambiguity reduced? Why do people let themselves be disciplined? The magic of Concentration lies in the following issues.

It's a game, and people have stakes. Concentration quickly gets a competitive character. People are stimulated to point out overlap before anybody else does. Thus they can show off how quickly and easily they comprehend what's going on in the discussion. Ambiguous ideas are quickly brought to the table because most people have a stake in understanding them before the list of ideas is going to be subjected to, for example, a StrawPoll.

Different people, different insights. Each group represents people with different backgrounds and experience. They look at the generated ideas with different eyes, seeing different patterns, relationships, and meanings.

Combining the participants' independent qualities and viewpoints is a powerful way of cleaning up a complex set of ideas.

Cleaning up enhances shared understanding. To merge ideas, participants have to discuss issues and their similarities. To reduce ambiguity, participants have to discuss the meaning of contributions and rephrase them. These interactions facilitate increased and mutual understanding.

Experience with hundreds of Concentration exercises show that there are a couple of things you have to bear in mind when using this thinkLet.

Make suggestions to get the group going. In order to encourage the group to get going, you may suggest a few obvious candidates for merging yourself. Normally, the group picks up and takes over immediately after you make one or two suggestions.

Discuss idea meaning only. The issues with Concentration is meaning of ideas, not merit. Make sure that during the activity, the discussion of why ideas are similar or why they are unclear, does not result in an assessment of the quality of an idea. Although this may be the focus of a next activity, it's not appropriate during the Concentration process. Moreover, the process may bog down because disputes arise and people may become reluctant to bring issues forward. So, intervene when this happens:

"I hear your opinion about this issue, but let's keep that for a later moment. At this point I just want everyone to understand what's on the list, not see eye to eye on it."

Beware for the ultimate abstraction. A nasty pitfall that you have to avoid is merging all ideas into the ultimate super-idea. This may happen if the group focuses too much on abstracting, and not on merging similar ideas. Let's use an illustration to see what can happen. Suppose you have brainstormed ideas regarding dealing with drug-related problems in a major town:

- *Idea 1: Provide clean injection needles for free to prevent HIV contamination.*
- *Idea 2: Encourage handing in used injection needles to avoid passing on AIDS to other drug users.*

If you just merge these ideas without abstracting, you'd come up with something like this:

Set up a system to prevent the use and further circulation of used injection needles.

However, if the group wanted to abstract as well, they might end up with something like this:

Improve hygiene of drug users' immediate environment.

The latter abstraction is much broader and hides a lot of the detail regarding the original ideas. The danger in doing this is that the group will ultimately arrive at the 'mother-of-all-ideas' and blend all other ideas into it. Often this super-idea is a re-formulation of the original topic. So, in the

case of our example the super-idea could be 'Handling drug-related problems'.

Too much abstraction in a Concentration process is often caused by having a lot of ideas on the list that are very general in nature. To avoid this, you may perform a One-Minute-Madness during the brainstorming activity that preceded the Concentration.

Establish merging rules. People may argue extensively whether or not ideas are similar enough to be merged. To manage this process we advise you to set some rules before you start the process. For example:

"We will only merge ideas together if no-one objects."

Remove persistently ambiguous ideas. When an ambiguous idea is pointed out and you ask for someone to explain it, it may happen that no-one will speak up. The owner itself may be too shy, while the other group members may really not understand it. In such situation you can suggest to the group to remove the idea from the list:

"If this idea is not comprehensible to any of you, let's remove it. If, at a later stage, someone thinks of a better way of saying what was meant, please submit a new idea to the list then."

Clean up from the bottom. When using GroupSystems you might want to consider to start cleaning up ideas from the bottom of the list.

GroupSystems renumbers the list of ideas every time ideas are merged. This means that all ideas that are listed after the merged ideas get a different number. During Concentration, this can be awkward. While you're merging some ideas, someone in the group is already looking for the next combinations. Continuously changing ideas numbers can get pretty confusing then. If you start at the bottom of the list, however, the renumbering will not affect many ideas.

Concentration Success Stories

Concentration is one of the most often used thinkLets to clean up lists of ideas. One story that illustrates the effectiveness of the thinkLet comes from a group of police officers working in a major city. The group met to determine criteria that they were going to use to establish priorities among organized crime projects. They brainstormed about 80 possible selection criteria in 20 minutes. The next 20 minutes were spent on a Concentration game. During this game, the participants reduced the list of possible criteria to 35 while rephrasing 7 criteria. The remaining criteria were subsequently BroomWagon-ed down to the 8 most important which were finally tested out for a trial period in the police force.

What's in a Name?

Concentration is the name of a common game that is played around the world. In this game, a set of cards contains two copies of a number of images, e.g. Disney characters. The cards are placed upside down on a table. Each player may open two cards. If the cards carry the same image, the player may keep them and open two other cards. If the cards are not

alike, the player has to turn them around again. Like in the card game, participants in a Concentration exercise can try and find similar ideas.



ThemeSeeker

Choose this thinkLet...

- ... to summarize the topics of discussion in a brainstorming activity
- ... after any brainstorming and before a Popcorn Sort

Do not choose this thinkLet...

- ... if categories for organization are known in advance.
- ... if you have not yet brainstormed ideas.

Overview

In this thinkLet you develop the top-level concepts for organizing many brainstorming ideas. Participants browse brainstorming ideas and find two or more that are related in some way. They articulate aloud the relationship between the two ideas to a scribe. If the group agrees, that relationship becomes the name of a category into which brainstorming ideas can be sorted in a future step. Sometimes it is not necessary to sort the ideas into the categories – the categories themselves might be sufficient for the next step.

Inputs

Raw ideas or comments from a brainstorming activity.

Outputs

A set of category names for summarizing or organizing the contents of a brainstorming activity

How to use ThemeSeeker

Setup

- 1 Post the brainstorming comments in a bucket in Categorizer.
- 2 Display the bucket (category) column
- 3 Prepare to add a new bucket (category).

Steps

- 1 Say this:
 - a “Please read through the comments on your screen and tell me, what are the key themes that emerged during your discussion?”
- 2 When users suggest a theme, add a bucket (category) with the theme as a label.
- 3 Continue the process until participants can find no more themes.

Insights on ThemeSeeker

This little thinkLet is handy for quickly summarizing the contents of a brainstorming discussion and for creating categories with which to organize the brainstorming comments.

In practice, the only difference between ThemeSeeker and RichRelations is in the initial prompt – what you say to the group. However, with RichRelations you will finish with a list of clearly categorical names, while with ThemeSeeker you will finish with a list of statements that summarize the topics of discussion in the preceding brainstorming session.

Depending on which you want, you may select on or the other of these thinkLets.

ThemeSeeker Success Stories

We worked with team of 27 database experts from all over the U.S. who had to prepare a white paper for the Department of Defense on the feasibility of integrating thousands of databases across all four armed services. The project was scheduled to run for six months.

The team members found it impossible to gather in one place at one time to work on the paper, so they opted to begin with a TagTeam FreeBrainstorming activity, with two sub-teams working in shifts to contribute ideas about what issues the white paper should address. When the brainstorming was done, they continued their work with a TagTeam ThemeSeeker to develop the list of topics for their white paper.

Still in TagTeam mode, the group used a BranchBuilder to develop an outline, followed by a LeafHopper to elaborate the contents of each node on the outline. Then they divided the sections of the document amongst themselves and went their separate ways to write their assigned sections. With just four 2-hour face-to-face meetings over the course of a week, the 27 members of the writing team drafted a 150-page white paper. One of the members edited the final draft of the document.

What's in a Name?

It would be nice to have some memorable and colorful metaphor as the name for this thinkLet. SkyDiver! OnionOnToast! ThickBricks! But all we have is plain-as-mud ThemeSeeker. We'd change it to something more lively, but it's so easy to remember as it is. Well, some of the other thinkLets have nice names. Hmmmm. I wonder what an OnionOnToast thinkLet would be...

RichRelations

Choose this thinkLet...

- ... to create a set of categories for organizing brainstorming comments.
- ... after any brainstorming and before a PopcornSort.

Do not choose this thinkLet...

- ... to converge from many ideas to a few ideas.
- ... when categories for organizing are already known.

Overview

In this thinkLet you create a set of categories for organizing ideas from a brainstorm session. Participants browse their brainstorming comments and find two items that are related in some way. They articulate the relationship between the two items, and if the group agrees, that relationship becomes the name of a category.

Inputs

Comments from a brainstorming activity.

Outputs

A set of category names for summarizing or organizing the comments from a brainstorming activity.

How to use RichRelations

Setup

- 1 Post the brainstorming comments in Categorizer.
- 2 Display the bucket (category) column.
- 3 Prepare to add a new bucket (category).

Steps

- 1 Say this:
 - a Please read through the comments on your screen. If you find two more comments that are related in some way, tell me how they are related.
 - b Add a bucket (category) with the relationship as a label.
 - c Continue the process until participants can find no more relationships.

Insights on RichRelations

This little thinkLet is nearly self-working magic. People just pipe up with useful category names with very little additional prompting.

If you ever find yourself with too many category names for comfort, no problem. Just do a RichRelations on the buckets themselves:

“Please find two or more buckets that are related in some way, and tell me their relationship.”

The team will propose a new category that will subsume the originals.

Voila! Your list of categories is shorter.

In practice, the only difference between RichRelations and ThemeSeeker is in the initial prompt – what you say to the group. However, with RichRelations you will finish with a list of clearly categorical names, while with ThemeSeeker you will finish with a list of summary statements that summarize the topics of discussion in the brainstorming session.

Depending on which you want, you may select on or the other of these thinkLets.

RichRelations Success Stories

We worked with a group of 40 community leaders in a middle-sized American city who were tasked to come up with some way to increase the likelihood that plans for developing city infrastructure would actually be carried out. For the preceding decade plans for road improvements, lighting, parks, landfills, and a variety of other amenities had to be shelved in the face of strong NIMBY (Not In My Back Yard) opposition. Citizens acknowledged the importance of every plan, but none were willing to have the new infrastructure in their own neighborhoods. The team first brainstormed all the arguments and excuses they had heard from the NIMBY constituents. Then, they use the RichRelations thinkLet to develop categories for the arguments of their opponents. They used a PopcornSort to organize those arguments, and then used a BucketBriefing approach to summarize the contents of each bucket.

These they carried forward into a process where they were tried to identify the vested interests underlying the arguments, and tried to develop new plans that could accommodate those interests.

What’s in a Name?

RichRelations draws its name from the facilitators prompt, “Find two items on this list that are related and tell me what is their relationship.” It is called RichRelations because of the rich understanding that emerges from identifying the relationships among concepts.

ThinkLets for Organizing – Placing

PopcornSort

Choose this thinkLet...

- ... after a divergence activity like FreeBrainstorming and a summarizing activity like FastFocus, ThemeFinder or RichRelations.
- ... to quickly organize an unstructured set of 50 – 1000 brainstorming comments into related clusters.
- ... to validate a summarization or convergence.

Do not choose this thinkLet...

- ... to converge on key issues. This thinkLet is for organizing lots of contributions, not for converging on the few that are worth further attention.

Overview

Team members drag-and-drop comments from an unsorted list into a set of electronic “buckets,” each of which represents a category for related concepts.

Inputs

- 1 Unordered list of comments from a brainstorming activity.
- 2 List of categories for organizing the ideas.

Outputs

A set of comments organized into categories.

How to use PopcornSort

Setup

- 1 Post the unordered list of comments into a single bucket in Categorizer.
- 2 Post the list of organizing categories as additional buckets in Categorizer as well.
- 3 Open the bucket containing the unordered list on the screens of the participants.

Steps

- 1 Make sure the group understands the meaning of each category.
- 2 Say this:
 - a In a few moments we are going to organize these comments into these categories.
 - b When I say “go” you will use your mouse to drag-and-drop comments from the blue list into the appropriate bucket.

- c You'll have to work quickly, because while you are thinking about an item, someone else may grab it and drag it away.
- d The screen is going to be popping like popcorn. It gets pretty lively, so have some fun, and work fast.
- e Any questions? OK. On your mark, get set, GO!

PopcornSort Insights

Two reasons to PopcornSort. PopcornSort is most often used as a follow-on to a brainstorming activity and a convergence. There are two different reasons to do the PopcornSort. First, you might use it when you really need to organize all the comments so you can continue working with them. For example, you might do this after a team FreeBrainstorms on concepts to be included in a team-authored document. In this case you might converge to a list of chapter headings, then drag-and-drop comments into buckets representing each chapter so you can begin to compose the document.

Second, you might do a PopcornSort just to validate a convergence, even though you don't plan to do further work with the comments. For example, imagine your team had ComparativeBrainstormed potential courses of action in response to a crisis. Imagine further you had FastFocused to a non-redundant list of possible courses of action. You could then PopcornSort all the original comments into buckets representing course of action. If the team finds a comment that doesn't fit in any bucket, the team can create a new bucket on the fly. This activity will assure that none of the original ideas were lost in the FastFocus activity.

The Magic of PopcornSort. PopcornSort is fast. How fast, you ask? It is so fast that no matter how large the team, and no matter how many comments they brainstorm, if they work together they will have their comments sorted in under five minutes. But wait, I hear you say. What if a group generates 800 comments? Can they still organize them in under 5 minutes? How can this be?

The magic of PopcornSort is in parallel human effort. No matter how many people participate in a brainstorming session no one person generates more than about 25-30 comments in one sitting. One person can sort 30 comments in under five minutes. So the bigger the group, the more comments they generate, but the more people there are to sort those comments. No matter how big the group gets, and no matter how many comments they generate, they can sort them into categories in under five minutes. Pretty magical, eh?

Two sources for categories. Often, before a group does a popcorn sort, they generate their own categories with one of the convergence techniques like FastFocus or ThemeFinder. However, depending on the task, they might use a pre-defined set of categories. For example, a team using the Fishbone Diagramming methodology would categorize causes for problems into one of eight preset categories.

Addressing a common concern. Occasionally a participant will express concern that someone might put an item into the wrong bucket during a Popcorn Sort. You can ease their concerns by saying something like, *“The PopcornSort is just a rough draft. We can follow up with a BucketWalk, where we will examine every bucket in turn to make sure there isn’t anything in it that doesn’t belong.”*

PopcornSort Success Stories

In 1999, Governor Jane Hull convened the Governor’s Task Force on Higher Education in Arizona to create a 20-year master plan for higher education in the state. At its first meeting, the 18 member Task Force FreeBrainstormed a list of 112 issues that the Task Force should address during its first year. They used a ThemeFinder thinkLet to create 10 buckets, and then PopcornSorted their ideas into the buckets in 3 ½ minutes. The ideas collected in those buckets became the foundation for their subsequent work the rest of the year.

In another case, we worked with a group of 12 key stakeholders in a major software development project to identify their win conditions. They FreeBrainstormed about 250 comments about what it would take for them to come out of the project as winners. They then converged to a list of 112 win conditions using a variation of FastFocus. Then they PopcornSorted their 112 win conditions into seven preset categories drawn from their development methodology. The categories included Functions, level of service, Interfaces, and so on. The PopcornSort lasted just over two minutes. The results provided the foundation from which the group negotiated and justified all subsequent requirements and specifications.

What’s in a Name?

This thinkLet is called PopcornSort because the ideas on the screen begin to pop in and out of buckets like popcorn popping at the refreshment counter of a movie theater.



ChauffeurSort

Choose this thinkLet...

- ... when you want to assure that the placement of every item in a category is carefully considered by the team
- ... when creating a shared understanding of the categories is as important as the actual placement of an item in a category

Do not choose this thinkLet...

- ... when time is of the essence. A sequence of PopcornSort followed by BucketWalk is far faster.
- ... if the appropriate placement of each item is straightforward or not likely to spark discussion.

Overview

Team members discuss the placement of each item within a pre-defined set of categories. Categories may have been previously derived with thinkLets like ThemeSeeker or RichRelations, or may be pre-defined in a methodology.

Inputs

- 1 A set of brainstorming comments.
- 2 A list of categories for organizing the brainstorming comments.

Outputs

A set of brainstorming comments organized into categories.

How to use ChauffeurSort

Setup

- 1 Post the category names as buckets in Categorizer.
- 2 Post the brainstorming comments as list items in a bucket in the same tool.

Steps

- 1 For each comment on the list, ask the group,
 - a “In which bucket does this comment belong, and why?”
- 2 Facilitate a verbal discussion about the reasons for placing the comment into a bucket.
- 3 When there is sufficient consensus drag-and-drop the comment into the bucket (category) to which it belongs.
- 4 Repeat steps 1-3 until all comments have been placed in the appropriate buckets.

Insights on ChauffeurSort

In a chauffeured sort the magic is in the discussion of the placement of every item. By the time the task is completed the team will have developed a rock-solid understanding of what each category does and does not mean. That understanding may shift and deepen as the task continues, so it may be worth doing a final BucketWalk at the end to verify that the items placed early in the process wound up in the right categories. A ChauffeurSort is not the fastest way to organize comments from a brainstorming session. The PopcornSort / BucketWalk combination will be far faster. However, with that combination you will only discuss the items that somebody believes to be misplaced. Sometimes that's a good thing, and sometimes it isn't. You decide.

ChauffeurSort Success Stories

The Criminal Investigations Division of the Amsterdam Police Department in the Netherlands was reorganizing its Information Department. This department gathers intelligence and background materials on organized crime, and prepares cases for Investigative Project Teams to investigate. The Information Department needed to reorganize because the way in which they were fighting organized crime was changing. They were moving from a functional bureaucracy to a project-based approach where people from many specialties joined a team for a particular investigation. The reorganization team used FreeBrainstorming to develop a comprehensive set of information access problems they had experienced in their careers. They used an ExpertChoice thinkLet to develop a set of categories representing all the different kinds of organized crime they encountered – computer crime, drugs, prostitution, and so on. The team used a Chauffeured sort to decide which information problems were associated with which kinds of crime. In this case the team often put the same item in several categories. Items that applied to all categories they placed in a “General Problems” category.

The results served several purposes. Based on the contents of each bucket, they were able to decide what kinds of specialist should be assigned to teams investigating each kind of crime. Their results also became a checklist for the Information team to make sure they gathered all the kinds of information they needed to build a case. Eventually the Information division reorganized its internal structures to better fight organized crime. The results were dramatic. The number of successfully prosecuted cases rose substantially over the next few years without an increase in personnel or budgets.

What's in a Name?

A chauffeur drives your car for you, so you don't have to think about the machinery. In ChauffeurSort a moderator drives the technology for the group, so they don't have to worry about the machinery, and to assure that they consider each item in its turn.

ThinkLets for organizing – Abstracting and Placing

Evolution

Choose this thinkLet...

... to find possible categories to organize ideas or concept when these categories are not obvious.

Do not choose this thinkLet...

... to find obvious categories. If the group can identify the categories by just looking at the ideas, use a ThemeSeeker instead.

... if you're planning on having a very fast organization exercise.

Evolution is smooth and easy, but not fast. If you're time pressed and the categories are not obvious, use ExpertChoice and resume the meeting at a later point in time when the expert is done.

Overview

Evolution let's your group identify possible categories by considering each idea on a list in turn. Participants find a possible category for each new idea, or place an idea into an already existing category. During this process, category emerge and evolve naturally. The result of this exercise is organized group of ideas that may scrutinized or elaborated in the next group activity.

Inputs

A list of uncategorized ideas.

Outputs

- 1 A set of categories for organizing the ideas.
- 2 An allocation of ideas over the categories.

How to use Evolution

Setup

- 1 Participants see the list of ideas and buckets in Categorizer.
- 2 Moderator allows participants to view ideas and comments.

Steps

- 1 Make sure the participants have the list of ideas in front and are looking at the first idea on the list.
- 2 Say this:
 - a Let's see if we can find some categories that we can use to organize our ideas. We'll start at the top of the list and work our way down.

- b Please give me the name of a category under which the first idea could fall. Do not make this category not too specific nor too general.
- 3 After defining a category for the first idea you move the first idea into this category. Continue as follows:
 - a Ok, now let's look at the second idea. Does it fit into the same category as the first idea? If so, let's place it there. If not, please define a category that could hold this one.
- 4 Repeat this process until there are no ideas left or until it becomes apparent that no new categories will emerge. In case of the latter, the process may turn into a ChauffeurSort or a PopcornSort.

Insights on Evolution

Evolution can be described as a last resort organization technique. Other organization thinkLets, such as the PopcornSort or the ChauffeurSort can be completed in much less time. However, Evolution is a very safe and useful thinkLet. Safe because you are as good as guaranteed to end up with an applicable set of categories. Useful because Evolution generates a lot of discussion as each idea is processed in turn which enhances shared understanding. It's from these perspectives that we can point out the magic of Evolution.

Almost automatic. Given the nature of Evolution to take one idea at a time and find or define an appropriate category, the set of categories evolves automatically.

Low cognitive effort. The Evolution process may not be the fastest, but it sure is very easy for a group to carry out. They don't have to try and find intricate relationships between ideas. They just take each idea as it comes and work from there.

Discussion enhances understanding. In the process of defining and assigning categories, ideas get air time. These discussions increase shared understanding. This shared understanding goes beyond each separate idea. Discussions will also address (re)-defining categories, supporting comments, and placements of earlier ideas. Hence, compared to working with a pre-defined set of categories, ideas are usually much more carefully considered during an Evolution exercise.

As easy as Evolution may seem, there are quite a number of issues that you have to bear in mind. Be aware that Evolution is not the fastest of organization processes and that the results of an Evolution activity always have to be double-checked. So, consider these issues:

You can stop halfway. Our experience shows that an Evolution process seldom gets completed. At a certain point the set of categories appears to have been saturated and no new categories emerge. In that case, you may continue the organization process using another thinkLet, such as the ChauffeurSort or PopcornSort.

BucketWalk the final results. We urge you to consider combining the Evolution thinkLet with the BucketWalk thinkLet. After the Evolution process has been completed, a set of categories has emerged and all ideas have been grouped under them. Then you must check whether the meaning of certain categories did shift during the exercise. This is not unlikely. Each new idea that is placed into an existing category may progressively change the nature and definition of that category. Hence, check with the group whether all ideas in a certain category belong there and whether the category label is appropriate.

Hey, it's not the final outline! Be prepared to end up with a 'prototype' outline at the end of an Evolution process. Following the previous point, meanings of categories may shift during the process. Moreover, the Evolution process just brings you to a particular organization of the group's idea, not necessarily to *the best* organization. The insight that follows from the discussions during the Evolution process may yield a different set of buckets if the final outcome is reconsidered carefully in retrospect.

Discuss meaning, not merit. As with the Concentration thinkLet, make sure that group discussions focus on the meaning of ideas, not on their merit. Discussion on idea merit will bog down the process unnecessarily. Concentration yields speed. If you have done a Concentration on the list before organizing it, the list is cleaned up and all unclear, ambiguous ideas have been rephrased. This experience will speed up the Evolution process as the meaning of many ideas will have been discussed already. Keep moving, lay down the rules. You need to lay down some ground rules to move the Evolution process forward. A risk of Evolution is that the group starts to disagree about certain categories and the placement of ideas. This may slow down the process down. So attune the way you want to move forward with the group, e.g.:

"Ok guys, let's say that we create a new category if the majority of you is in favor."

"Shall we say that we only place an idea into a category if no-one objects?"

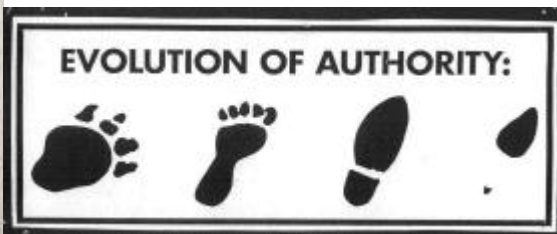
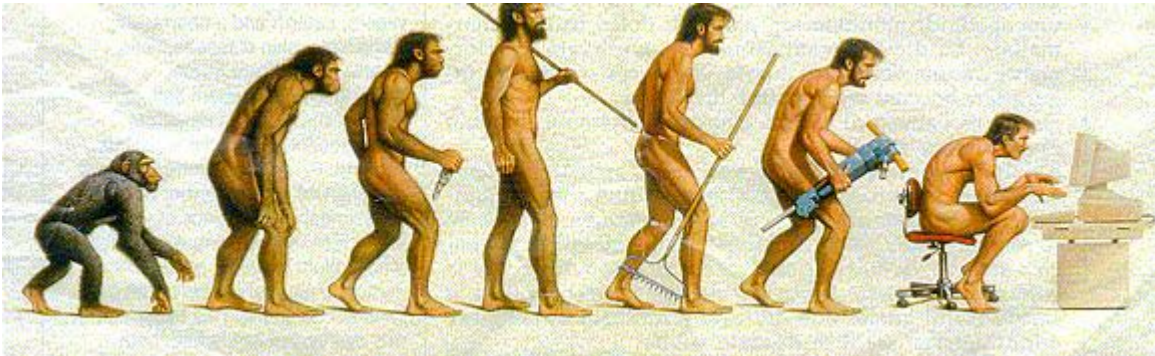
Evolution Success Stories

We successfully applied Evolution on many occasions. It turned out to be very effective during a workshop representatives of the Departments of Works and Social Affairs of a medium size municipality. The group met to come up with a number of key indicators that the mayor and his council could use to monitor the level of 'livability', i.e. the quality of life in a city. The group started with a FreeBrainstorm activity to identify and discuss illustrations of events and situations that illustrated the level of 'livability' in the city. We helped the group organize these ideas using Evolution. Categories that emerged included 'Area Management', 'Traffic', and 'Quality of architecture'. Especially the discussion that took place during the Evolution was perceived as very enriching.

The resulting categorization of ideas was re-considered and adopted by the group as a basis to define monitoring indicators.

What's in a Name?

Guess why we called this Evolution. Because categories evolve using this thinkLet. Duh!



ThinkLets for Evaluation

StrawPoll

Choose this thinkLet...

- ... to measure consensus within a group.
- ... to reveal patterns of agreement or disagreement within a group.
- ... to assess or evaluate a set of concepts.

Do not choose this thinkLet...

- ... to make a decision.

Overview

In this thinkLet, participants gain a “sense of the group” by casting votes and reviewing results. They do this to start a discussion rather than to end it.

Inputs

A set of items to be evaluated.

Outputs

- 1 An ordered list of evaluated items.
- 2 A tabular and graphical display of the patterns of consensus in the group.

How to use StrawPoll

Setup

- 1 Post a set of issues to Vote.
- 2 Select a voting method (there is magic in this).
- 3 Establish the voting criteria (there is magic here, too).

Steps

- 1 Say this
 - a We are going to take a straw poll. We are not making a final decision right now. We just want to get a sense of the group so we can focus our subsequent efforts where they should be focused.
 - b I've sent you a ballot containing a set of X items.
 - c Please rate each item on a scale from Y to Z.
 - d A rating of Y means...
 - e A rating of Z means...
 - f When you are done voting, click the SUBMIT BALLOT button that appears just above the ballot on the left.

Insights on StrawPoll

In all the years we've been working with groups, we've had no more than five groups between us that actually use the electronic polling tools to make a final decision. We use the polling tools with almost every group, but we use them to kick off and focus a discussion rather than to close a discussion and make a decision. Most organizations are not democracies. Majority Rule is a good way to govern, but not a good way to run a business. Or an Army.

So what do we do with the voting tools? We compare concepts on some criteria. We express opinions, we offer advice, we select items worthy of further attention. We almost always follow a StrawPoll with an oral discussion of the results. Often that discussion follows the format laid out in the Crowbar thinkLet.

The Magic of StrawPolls. The GroupSystems Vote tool can instantly tabulate and display votes, so votes can be very fast. There are seven different voting methods built into Vote, and you can make up your own custom voting methods on the fly. Here are some observations about when and why you might want to choose one or another of these methods.

Rank Order. In this method the participants receive a list of ballot items which they drag-and-drop into their order of preference, and then submit. People sometimes call this the "Tow Truck" method because their cursor turns into a little tow truck icon as they drag an item up or down the ballot. We almost never use this method for two reasons. First, although it allows people to sort items into order, it does not allow them to say how much higher they think one item should be than another. When you see Item 1 above Item two, you don't know if Item 1 is vastly superior or only the tiniest bit better than Item 2.

Secondly, a rank order vote artificially magnifies the amount of disagreement in a group. You and I might think that the same three items are approximately equal in importance. However, you might order them 1-2-3, while I might order them 3-1-2. The results would show substantial disagreement on these items, when in fact, we agree that they are all about equal. Our advice: Don't bother with Rank Order voting.

10-point Scale. Groups tend to like 1 to 10 voting. It can be used for a lot of things. A typical prompt might be *"On a scale from one to ten, how likely is each of these risks to occur?"*

This method overcomes all the shortcomings of rank order votes. You can tell how big a difference there is from one item to the next, and patterns of disagreement are not artificially magnified.

The magic in this technique comes from the way you frame the voting criteria. You must clearly define what a 10 means and what a 1 means. You might get very different results if you say, *"A 10 means this item is very important, while a 1 means it is very unimportant"* than

you would get if you said, “A 10 means this item is very easy to implement, while a 1 means it is quite difficult to implement.”

Be careful not to read too much meaning into small differences in the results. Consider saying something like, “*It looks like we’ve got a cluster of three items near the top and a cluster of four that are near the bottom. Then we’ve got quite a spread in the middle.*”

Multiple Selection. With this method the participants can indicate preferences by putting electronic checkmarks next to some number of items on a list. The moderator gets to decide how many checkmarks each person can use. The results display shows how many checkmarks each item received.

The most magical property of this voting method is that it reveals patterns of agreement while hiding patterns of disagreement. You can say, “*I see 8 people agreed that this item should be selected, and 4 people agreed that this one was worthy. We all agreed that these seven items should not receive further attention...*” In a badly conflicted group it might be useful at times to reveal patterns of agreement while hiding patterns of disagreement.

Multiple Selection is also very useful for evaluating long lists, say, 40 to 400 items. It has far lower cognitive load than a 1 – 10 vote. See the BroomWagon thinkLet for an example.

Yes/No, True/False. Yes/No and True/False votes are logically similar to Multiple Selection, except that the results display will show patterns of disagreement as well as agreement. It is sometimes useful to focus people on their patterns of disagreement.

Agree/Disagree. GroupSystems has two flavors of Agree/Disagree built in – a five-point and a 4 point. With a 4 point scale, people are forced to take a stand. They must express a positive or negative attitude. They cannot remain neutral. With a 5 point scale they can express a neutral opinion. Choose the one that suits your needs.

Custom Method. You can create your own custom polling methods with your own labels and your own weightings. One group we know created a custom method with the label, CRITICAL, IMPORTANT, NICE-TO-HAVE. Items with a CRITICAL rating receive 9 points. Items with an IMPORTANT rating receive 3 points. Items that receive a NICE-TO-HAVE rating receive 1 point.

StrawPoll Success Stories

A team of 14 people in a division of an international insurance company based in Zurich had to come up with a new strategic direction. Their market share was slipping dramatically, and their headquarters had threatened to disband the division if things did not turn around. A consulting firm presented the team with 11 potential strategic initiatives. Then the team used a LeafHopper to discuss the possible negative consequences of each initiative. During the discussion it became clear

that some of these strategies could be combined, while others could not. A consultant prepared a list of 91 possible combinations of strategies. The team put the list of 91 items on a ballot, and allowed each member to place a checkmark next to only one item on the list. The results showed that one combined strategy received 8 checkmarks, while several others received two or 1 checkmarks. Only five of the original 11 strategies were represented among the selected items, so the team decided not to discuss the other six. They focused their discussion first on the item that had received eight checkmarks, to tease out what was so special about that combination of strategies that had drawn so much attention. They discussed the others that had received one or two checkmarks to see what value might be drawn from them. In the end they crafted a business plan based on the combined strategies they had sifted from the 91 possibilities. The StrawPoll allowed them to focus their scarce time and effort on just the items that were worth further attention.

What's in a Name?

This thinkLet is called StrawPoll because in American politics, the expression, "Straw Poll" is used to describe a non-binding vote that is taken not to make a decision, but to get a sense of the patterns of agreement and disagreement in a group. A straw poll is typically taken to help structure and focus subsequent debate.

BucketWalk

Choose this thinkLet ...

... to validate and discuss the results of a PopcornSort or LeafHopper.

Do not choose this thinkLet ...

... if it is not important that each item is placed appropriately after a PopcornSort. If an approximation is sufficient.

Overview

In this thinkLet, you verify an earlier organization process. After a PopcornSort team members review the contents of each bucket to make sure that all items are appropriately placed and understood. Moreover, cases of overlap between items are resolved.

Inputs

A set of comments organized into categories.

Outputs

A set of comments validated as belonging in the categories to which they have been assigned.

How to BucketWalk

Setup

A set of category buckets in Categorizer, each bucket containing comments believed to be relevant to that category.

Steps

- 1 Open the first bucket on the participant screens.
- 2 Say this:
 - a Is there anything in this bucket which does not belong here?
If you find anything in this bucket that does not belong, raise your hand, and we'll discuss where to put it
- 3 If anyone raises a question about an item, moderate an oral discussion to choose in which bucket it should be placed.
- 4 Continue until the participants agree that all items are correctly placed.
- 5 Then, continue and say this:
 - a Are there items in this bucket which you feel are as good as describing the same idea? If you so, please raise your hand.
- 6 If anyone raises a hand, use the Concentration techniques to resolve overlap between ideas.

- 7 Continue until the participants agree that there is no more overlap in the category.
- 8 Finally, conclude with this:
 - a Are there items in this bucket which you feel are poorly formulated? If you so, raise your hand.
- 9 If anyone raises a hand, resolve the issue by requesting explanations from the group as well as alternative ways to formulate the item.
- 10 Continue until no-one points out poorly formulated items anymore.
- 11 Repeat this pattern for each category bucket.

BucketWalk Insights

Where the Popcorn Sort feels fast and wild, the BucketWalk feels leisurely and contemplative. Usually your team will find one or two items in each bucket that might belong in a different bucket. You simply drag such items into another bucket. Sometimes you will actually find an item for which no bucket yet exists. You can simply create a new bucket. Often, participants point out problems with comprehension of items because they are poorly phrased. You simply resolve these through some verbal discussion asking for alternatives. Overlap between ideas also occur which are handled using Concentration techniques.

When you have finished a bucket walk your team will have confidence that the items in each category belong in that category, that the categories are cleaned up, and that the categories themselves make sense. They will also have a much better shared understanding of what each category means and what it contains.

BucketWalk Success Story

A customer support organization within a commercial company brainstormed its goals, and then popcorn sorted them into 7 categories. When the BucketWalked the categories, they found that two of the categories had strong overlap. They merged those two categories. They shifted about a dozen goals into other categories, and create one new category when they discovered one set of words had been used to describe two very different kinds of goals. The resulting validated, organized goal sets became the foundation for developing a new reward system for the personnel in the customer support organization.

What's in a Name?

BucketWalk is so named because the participants “walk” through the contents of each category at a leisurely pace, contemplating whether anything in a given category actually fits better in a different category or has to be phrased more appropriately.

BucketShuffle

Choose this thinkLet ...

... to put the ideas within a category into some sort of order.

Do not choose this thinkLet ...

- ... if the order of ideas is of no essence to the task at hand.
- ... if the order has to be determined in a group-wide (anonymous) way where every participants can have his or her say. Consider using a StrawPoll thinkLet instead.

Overview

In this thinkLet, you prioritize a set of concepts that have already been organized into categories. After a PopcornSort or a LeafHopper, the team members review the contents of each category in turn. They orally discuss which items should be placed near the top of the list, and with items should be placed near the bottom of the list within each category. They do not haggle over specifics. This is a quick and dirty prioritization.

Inputs

A set of comments organized into categories.

Outputs

A set of categories, each of which contains an ordered list of ideas.

How to use BucketShuffle

Setup

A set of category buckets in Categorizer, each bucket containing comments believed to be relevant to that category.

Steps

- 1 Open the first bucket on the participant screens
- 2 Say this:
 - a Which of the items in this bucket should be clustered near the top of the list, and which of these items should be clustered near the bottom of the list?
- 3 Drag-and-drop items into an order suggested by the team.
- 4 Repeat this pattern for each category bucket.

BucketShuffle Insights

The BucketShuffle is a variation of the BucketWalk. It may be a little livelier than the contemplative, reflective BucketWalk, because people may decide to argue about where an item should be placed on its list within a category.

The magic of the bucket shuffle. The magic of the bucket shuffle lies in letting everybody know that the ordering of the items in the list is only an approximation. You can say things like:

“Let’s cluster the things we have to do now near the top of the list.”

“Let’s drag the things we should put off till later down near the bottom of the list.”

“Can we say that the things clumped near the middle of the list are things that should be done soon, but not necessarily now?”

The magic words are “clustered” and “near the top” and “clumped” and “near the bottom.” Don’t let the discussion bog down into squabbles about whether Item 7 should come before or after Item 8.

If you find that your team wants to bog down or get nitpicky about the order of a list within a bucket, you can always shift the items into a StrawPoll thinkLet and bypass all the haggling.

Usually your team will find some items in each bucket that might belong in a different bucket. You simply drag such items into another bucket. Sometimes you will actually find an item for which no bucket yet exists. You can simply create a new bucket. When you have finished a BucketShuffle your team will have confidence that the items in each category belong in that category, and that the categories themselves make sense. They will also have a much better shared understanding of what each category means and what it contains. As an added bonus, they will have some sense of the approximate order of the items in each category.

BucketShuffle Success Story

A customer support organization within a commercial company brainstormed its goals, and then popcorn sorted them into 7 categories. Then they use a BucketShuffle on the goals in each category based on their urgency. Later they decided to pull the top items from each category into a vote to prioritize them for action. The results became the foundation for planning the work for the next quarter.

What’s in a Name?



We call this thinkLet the BucketShuffle because the participants shuffle the contents of each bucket into some particular order.

MultiCriteria

Choose this thinkLet...

- ... to evaluate a list of items against multiple criteria
- ... when the team wants to make sense of complex issues surrounding a decision
- ... to provoke useful, focused discussion about a set of options

Do not choose this thinkLet...

- ... as a final decision-making process. Odd anomalies can crop up in the results of a MultiCriteria analysis.

Overview

Participants rate each of a set of ballot items on two or more criteria. Results are sometimes aggregated, sometimes graphed. Results are usually used to provoke conversations. Occasionally they are used to make a decision.

Inputs

- 1 A list of items to be evaluated.
- 2 A list of criteria for evaluating each item.
- 3 A list of criteria weights for regulating the influence of each individual criterion on the complete evaluation (optional).

Outputs

- 1 A table showing how the group rated each item against each criteria, along with other statistical analyses and graphs showing patterns of consensus.
- 2 A prioritized list of items.

How to use MultiCriteria

Setup

- 1 Post the list of items to be evaluated as the Primary List in Alternative Analysis.
- 2 Post the list of criteria as the Secondary List in the same tool.
- 3 Select a polling method (See the Insights section of the StrawPoll thinkLet for discussion of polling methods).
- 4 Open ballots on the screens of the team members.
- 5 When the results are in, post the list of criteria weights in the results matrix of Alternative Analysis.

Steps

- 1 First make sure the group understands the items to be evaluated. Say this:
 - a If there are alternatives that you have clarifying questions about, please raise your hand.
- 2 If people raise their hand, facilitate a verbal discussion to address any understanding difficulties. If necessary, re-formulate the alternative concerned.
- 3 Make sure the group understands the criteria. Say this:
 - a If there are criteria that you have clarifying questions about, please raise your hand.
- 4 If people raise their hand, facilitate a verbal discussion to address any understanding difficulties. If necessary, re-formulate the criteria concerned.
- 5 Explain how to enter votes (it varies by polling method).
- 6 Explain how to submit ballots.
- 7 Allow the team to rate each alternative against each criteria, saying:
 - a If there are no further questions, let's get started. Please rate each alternative with respect to the criteria we have defined.
- 8 Review the results with the team, e.g. using Crowbar techniques.

Insights on MultiCriteria

You could use MultiCriteria as the last step for making complex decisions, but when the chips are down, people don't really buy into the results. In their hearts they usually regard the outcome as an artificial product of some blind numerical thrashing.

The real magic with MultiCriteria is not in the polling itself, nor in learning which item "won", nor in seeing which items fell into what order. The real magic is in the conversations that follow as people try to explain why the results might have come out as they did. Follow the MultiCriteria with a Crowbar or a MoodRing. That's where the magic lies. Unless the team insists on it, don't go strictly by the polling results. Rather, use the numbers to kick off the discussion thinkLets. Also it always helps to do a reality

check with the group on the results with a prompt like,

"Here are the results. Looks like W and X came out at the top of the list, and Y and Z came out at the bottom of the list. Does this make sense? Do you buy this?"

Good conversation will follow. In the end, the team may wind up accepting the results as they came from the poll. But just as often they will learn new things and adopt new perspectives, and wind up changing the polling results.

Remember the StrawPoll motto:

“We’re not making a decision here. We’re just getting the sense of the group.”

Vote early, vote often.

Sometimes it may make sense to weight the different criteria differently.

Perhaps a team might want to say cost is twice as important as speed.

You can add custom weights to the criteria at any time before or after the polling.

MultiCriteria Success Stories

An internal auditor worked with a team of senior executives and managers at a major corporation to identify and assess business process risks as part of a strategic planning process. The team used a LeafHopper thinkLet to identify key risks, and then used a MultiCriteria thinkLet to assess the likelihood and impact of each risk. Using the Graphing capability in the GroupSystems Alternative Analysis tool, they plotted the risks on a two-by-two scatter chart. After some discussion, risks that fell in the high-likelihood-high-impact quadrant became the subject of immediate action planning. Risks that fell in the low-likelihood-high-impact and high-likelihood-low-impact were handed over to sub-teams for further analysis. Low-likelihood-low-impact risks were assigned for monitoring.

What’s in a Name?

The MultiCriteria thinkLet is so named because people facing choices use more than one criterion to evaluate a set of concepts.

<Cartoon met two ladies, one with looks, one with a bag of money, and a confused guy>

CheckMark

Choose this thinkLet...

- ... when you want to focus a group on its patterns of agreement and de-emphasize patterns of disagreement as they converge. For example, when a group is badly polarized and you want them to find common ground.
- ... when users must select from so many items (more than 100 or so) that giving a numeric rating on each item would cause cognitive overload.

Do not choose this thinkLet...

- ... when it is important to dig into the assumptions and interests that underlie major disagreements in the group. Consider using StrawPoll followed by a Crowbar.
- ... when you want to use the polling activity to provoke a discussion, consider using Crowbar.

Overview

In this thinkLet, you give each participant a ballot, and allow them to checkmark their favorite items. Usually, you limit the number of items that can be marked on a given ballot.

Inputs

A list of ideas from a brainstorming activity.

Outputs

A list of ideas ordered according to the preferences of the team members.

How to use CheckMark

Setup

- 1 Post the brainstorming comments to Vote.
- 2 Select the Multiple Selection method. If desired, set a maximum number of items that can be checkmarked on a given ballot. If no maximum is desired, the number of votes may be set equal to the number of comments.

Steps

- 1 Say This:
 - a Each of you has a ballot with all our brainstorming comments on it.
 - b Read through the ballot and place a checkmark next to your favorite items.
 - c You can checkmark no more than <maximum number> items on the ballot.
- 2 When all votes are in, say this:
 - a Here are the results. It looks like <x> of you agree that the first item is important. <y> of you agree that the second item is worth considering. <z> of you agreed that we should pay some attention to Item 3...

Insights on CheckMark

The Checkmark has two kinds of magic. The first is that it can highlight patterns of agreement in a group, while significantly de-emphasizing patterns of disagreement. If you have a polarized or conflicted group, and you want them to notice their common ground, a checkmark poll shows them where they agree without showing them very little about how they disagree. If an item receives no checkmarks, that means all participants agreed that it was not worthy of further attention. If an item receives six checkmarks, that means six people agree that it merits more consideration. Even an item that gets two checkmarks shows some agreement in the group.

The second kind of magic in the Checkmark thinkLet comes from its very low cognitive load. It is far easier for someone to put a checkmark next to a comment they like than it is to apply a five-point agree-disagree scale to the same item. When a team has dozens or hundreds of items to rate, multi-point scales can become

Checkmark Success Stories

We once worked with the partners in a consulting firm that had reached an impasse about the strategic direction of their firm. One faction wanted to go into debt and grow the firm quickly. The other faction wanted to take a course that would preserve capital and minimize risk. For three days they used StrawPoll thinkLets to evaluate possible courses of action, which focused them on their differences. They became increasingly polarized. By the end of three days they were on the brink of dissolving the firm and reforming two different firms. Although none of the partners wanted the firm to dissolve, they could not find their way back to common ground. We suggested that they brainstorm very specific action items, and then evaluate them with a CheckMark thinkLet. They developed and evaluated about a dozen action items. When the results came in, one of the proposed actions had received checkmarks from $\frac{3}{4}$ of the partners. It was

a small indication that there was some common ground for the group. Working from that item they were able to piece together a way forward that allowed some risk for growth, and some conservation of capital for stability.

In a very different case, at a major conference in Hawaii, more than 600 attendees were asked to select the best paper for a peoples-choice award. More than 220 papers were in contention. None of the attendees had the time or interest to evaluate 220 papers on a 1-5 scale. Instead, each attendee read the papers they found to be most interesting, and each attendee was granted up to 10 checkmarks for their ballot. The paper that received the most checkmarks was declared the winner. It had received four times as many checkmarks as its nearest competitor.

What's in a Name?

We call this the CheckMark thinkLet because the checkmark is its most obvious visual characteristic. Of course, you could just as easily use dots or X's to accomplish the task, but the checkmark has a strong positive connotation.

StakeholderPoll

Choose this thinkLet...

- ... to contrast the opinions of different stakeholder groups.
- ... to understand and integrate the opinions of different groups of experts.

Do not choose this thinkLet...

- ... if you only want to highlight patterns of agreement, e.g. when a group is badly conflicted. In this case, consider using PickSix.

Overview

In this thinkLet you explore differences and similarities of opinion and interest by breaking out polling results by stakeholder group. Stakeholders will see how their own position differs from those of others. This thinkLet provides you with a basis for focused discussions among stakeholder groups.

Inputs

- 1 A list of items to be evaluated.
- 2 A list of the sub-groups who will participate.

Outputs

A prioritized list of items, with results broken out by stakeholder group.

How to use StakeholderPoll

Setup

- 1 Post the list of items to be evaluated as the Primary List in Alternative Analysis.
- 2 Post the list of sub-groups as the Secondary List in the same tool.
- 3 Select a polling method (See the Insights section of the StrawPoll thinkLet for discussion of selecting a polling method).
- 4 Open ballots on the screens of the participants.

Steps

- 1 Make sure the participants understand the items to be evaluated.
- 2 Say this:
 - a I just sent you a ballot. Notice that there are several columns on that ballot, one for each subgroup. (Name the various sub-groups.)

- b Find the column that represents your sub-group and enter your opinions in that column. Do not vote in any other column.
- 3 Explain how to submit ballots.
- 4 Hold an oral discussion with the group about the results.

Insights on StakeholderPoll

Sometimes it can be very useful to know how the opinions of the Engineers differ from those of the Marketing people, or how the opinions of the customers in New York City differ from the opinions of customers in San Francisco. This thinkLet lets you contrast and compare opinions by sub-group.

As with the MultiCriteria thinkLet, the magic of StakeholderPoll is not in the results so much as in the conversations that follow as people try to make sense of the outcome. Consider following this thinkLet with Crowbar or MoodRing discussions, or just hold an open conversation among the stakeholders. Marvelously useful things will emerge – unshared information, un-noticed assumptions, hidden agendas, etc.

StakeholderPoll Success Stories

A software requirements development team made up of marketing, sales, engineering, and management people used a StakeholderPoll to evaluate a list of 220 possible requirements. When the results came in, it was clear that all stakeholders agreed on the evaluations of some of the items, but there were large differences by stakeholder group on other items. The subsequent discussions surfaced more than a dozen critical issues that they group had not previously addressed. They revised their requirements accordingly.

What's in a Name?

StakeholderPoll. A clear, expressive name. Unpretentious, yet it develops nicely on the tongue and has a smooth aftertaste with overtones of apples and butterscotch. Captures the essence of the thinkLet.

BucketVote

Choose this thinkLet...

- ... when the group needs to cluster a number of items into value-based categories.
- ... when speed is more important than precision.
- ... when team members trust one another's ability to evaluate the issues.

Do not choose this thinkLet...

- ... when you need to compare, contrast, and explore the opinions of various team members. Consider a StrawPoll followed by a Crowbar instead.
- ... when you need to finish with a rank ordered list. Using BucketVote you wind up with items clustered by priority, but they are not rank-ordered within a cluster. Consider a StrawPoll instead.

Overview

In this thinkLet, you present the team with the ballot items, and a set of buckets. The buckets have evaluative labels like now-soon-later, or high-medium-low. Participants work in parallel to drag-and-drop items off the original list into the bucket they deem most appropriate. As participants place an item in a bucket, the item disappears from the original ballot. Each ballot item is therefore only handled by a single participant. Using this thinkLet a team can evaluate hundreds of items in a matter of minutes.

Inputs

A list of items to be evaluated.

Outputs

Items clustered into value-based categories.

How to use BucketVote

Setup

- 1 Post the ballot items to the Categorizer tool.
- 2 Establish a bucket for each priority level.

Steps

- 1 Say this:
 - a You have before you a list of ballot items.
 - b There are three buckets that represent three different evaluation levels <Explain the buckets>.

- c When I say 'Go,' find an item on ballot and drag-and-drop it into the bucket where you think it best fits. When you drop an item into the bucket, it will disappear from the ballot.
- 2 When all items have been placed in buckets, consider following up with a BucketWalk, and possibly a BucketShuffle.

Insights on BucketVote

The magic of BucketVote lies in its speed. It's a very fast way to evaluate many items. It takes advantage of the best that collaborative technology allows: parallel human processing. Each item gets handled by only one person. On the downside, you have no way of comparing people's opinions once the items have been prioritized, but on the other hand, many times that kind of comparison is simply not needed. You just want to get a rough approximation of which items rate high, and which items rate low.

It's probably useful to keep the number of buckets low, perhaps 3 or 4 at most, so the team doesn't get bogged down in trying to distinguish the nuances of one bucket from another.

If your team is a bit nervous that someone might have placed an item in the wrong bucket, follow up with a bucket walk. If you find that you need finer distinctions than you got with your first pass, consider doing a BucketShuffle to order things within each bucket.

BucketVote Success Story

We worked with a group of eight military officers who were engaged in a wargaming exercise. They had to listen to intelligence briefings, and then brainstorm about what the enemy might do. They finished with a 56-item list of the enemy's possible courses of action. This list they took into a BucketVote. The buckets were labeled, "Most Likely," "Least Likely," and "Most Dangerous." They had the 56 items prioritized in under five minutes. They followed up with a quick BucketShuffle, and then moved on to develop contingency plans for responding to the enemy's actions.

What's in a Name?

This thinkLet is called BucketVote because people vote by dropping items into buckets.

ThinkLets for Building Consensus

Crowbar

Choose this thinkLet...

- ... to surface and examine assumptions.
- ... to share unshared information.
- ... to reveal hidden agendas.
- ... to provoke a focused discussion about issues where the group has a low consensus.

Do not choose this thinkLet...

- ... if you are just trying to let the group assess a number of issues in order to focus further discussion, such as with a BroomWagon thinkLet.

Overview

This is thinkLet let's the group address the reasons for a lack of consensus on certain issues. The Crowbar is e.g. applied after completing a StrawPoll, when the team engages in a structured discussion of the items that showed the highest standard deviation over the set of scores.

Inputs

Voting results from a StrawPoll using a method that reveals patterns of agreement and disagreement.

Outputs

- 1 A prioritized list of items.
- 2 Shared understanding of the reasons behind differences of opinion within the group.

How to use Crowbar

Setup

- 1 Sort the results of the StrawPoll into descending order based on Standard Deviation.
- 2 Display the sorted results on the public screen.

Steps

- 1 Say this:
 - a The items near the bottom of the list are the ones upon which you have the most agreement.
 - b However, you do not have consensus about the items near the top of the list.
 - c Let's consider this first item. Some of you rated it quite high, while others of you rated it quite low.

- d Without telling me how you voted, what reasons might exist for rating this item quite high, and what reasons might exist for rating this item quite low?
- e Moderate a discussion about what reasons might exist for high and low ratings of an item. Repeat the crowbar prompt any time the discussion seems to be straying.
- f Keep track of and periodically repeat the reasons the group suggests on each side of the issue.
- g Repeat this process for any ballot item that seem worthy of such discussion.

Insights on Crowbar

Crowbar is one of the thinkLets we use most frequently in our work with teams. It is very simple, yet it is intense and powerful.

The magic of the Crowbar thinkLet. The magic of the Crowbar lies in the prompt, “without telling me how you voted, what reasons might exist...” The most amazing things happen when you prompt the group in this way. The discussion becomes focused like a laser beam. The team members do not wander around lost in Discussion Land, nor do they spend time arguing in violent agreement with one another. They zero in on just the areas that require discussion.

During the discussion all sorts of interesting things come out. People express and examine assumptions they didn’t even realize they were making. They often share information that the rest of the group didn’t know. Sometimes they reveal their hidden agendas, which lets the group move forward much more directly. Occasionally they discover ambiguities in a ballot item. Sometimes they even find that someone misunderstood the evaluation criteria.

During a Crowbar, people not only reveal assumptions about the issues under consideration, they also reveal assumptions (often mistaken) about people who voted differently than they did. Thus, the Crowbar can be a useful tool for helping team members learn about one another’s needs and motivations. As such it has been a useful team-building tool.

For discussion, not decision. We almost never use voting tools to make a decision. We use voting tools in almost every group interaction to kick off a discussion or to provoke an argument. The voting results are nowhere near as interesting as the patterns of consensus and the subsequent discussion. With Crowbar, as with other evaluation thinkLets, we recommend the rule, “Vote early, vote often.” It’s a wonderful way to find out where you stand, and to see where the group must do additional work as they move toward consensus.

A couple of practical notes. Before we finish, it’s worth mentioning a couple of practical suggestions. Although you prompt the participants not to tell you how they voted, they very often choose to abandon their anonymity and say things like, “Well, I voted such-and-such because...” Don’t let that trouble you, and don’t bother to enforce it. The primary

purpose of saying “without telling me how you voted..” is to let people articulate an idea without having to be seen as endorsing the idea. It’s a safety net.

Second, we suggest you quickly get in the habit of repeating both the ballot item the voting criteria with every crowbar prompt. It really helps keep the discussion focused. For example,

“Without telling me how you voted, what reasons might exist for somebody to say that it was critical to keep football at this school, and what reasons might exist for to say that football is useless at this school?”

“Without telling me how you voted, what reasons might exist for somebody to say that implementing an ERP is very important, and what reasons might exist for saying that implementing an ERP is very unimportant?”

“...what reasons might exist for saying that our competitors new product is a major threat, and what reasons might exist for saying that the competitors product is a minor threat?”

“...what reasons might exist for rating this vendor as superior, and what reasons might exist for rating this vendor as inferior?”

Crowbar Success Stories

We once worked on a strategic plan with 8 members of the senior management council for a consulting firm that was fighting for survival in a rapidly changing market. By the time we joined the process, the two partners in the firm, who had the highest personal esteem for one another, were nonetheless in a painful conflict about the future directions of the firm. One seemed to be far more risk averse than the other.

When we began work, the two partners sat on opposite sides at opposite ends of the table. This was not a good sign. We began work by asking the team to FreeBrainstorm strategic initiatives that the firm could undertake. We FastFocused the initiatives to a StrawPoll ballot and ask the participants to rate each initiative on a scale from 1 to 10 for its importance to the long-term survival of the company. When the results were sorted by Standard deviation, it was immediately obvious that the group lacked consensus on one issue in particular. Two people had given the initiative a rating of 8; the rest had given it ratings of 3 or 4.

We gave the Crowbar prompt,

“Without telling me how you voted, what reasons might exist for saying this initiative is vital to the long term survival of the company, and what reasons might exist for saying it is unimportant to the long term survival of the company?”

The group seemed to hold it's breath, as if waiting for the other shoe to drop. Finally, with obvious reluctance, one of the partners said,

"I gave this initiative an 8. Of all the ideas on the table, this is the most important..."

He began to recite the arguments and reasons for his vote. His partner sat open mouthed with astonishment. When he finally got his turn to speak he said,

"You gave that an 8? I'm the other person who gave it an 8. It's absolutely mandatory that we implement this initiative immediately"

He recited his supporting arguments, which were quite different than those of the other partner. When he was done speaking, the two partners rose spontaneously from their chairs and circled the table to embrace one another. They sat down together at the head of the table. It turned out indeed had been more risk averse than the other, but they had been talking about different initiatives without realizing it, one wanting to take a risk on one initiative, the other wanting to be conservative on another. They had also been using the same words for different concepts. The Crowbar discussion surfaced all these issues and the firm was able to move forward in unity.

What's in a Name?

We call this thinkLet the Crowbar because it is so useful for prying assumptions and information out of a group. Sometimes this thinkLet has been the only way we could find to get people talking about the real issues.



A facilitator prepares to use the Crowbar thinkLet with a team.

MoodRing

Choose this thinkLet...

- ... to track patterns of consensus on a single issue in real time.
- ... to know when it is time to stop the talking and take a decision.

Do not choose this thinkLet...

- ... if you need to address several issues at the same time. Use a StrawPoll instead.

Overview

Participants register their opinion on a single topic, then begin an oral discussion. As they talk, if they hear something that changes their opinion either direction, they change their vote.

Inputs

A single statement of an issue.

Outputs

An ever-changing pattern of group consensus.

How to use MoodRing

Setup

- 1 Post a statement about an issue in Opinion Meter.
- 2 Open the Opinion Meter on the participants' screens.

Steps

- 1 Make sure the group understands the issue. Say this:
 - a If you have any clarifying questions about the issue at hand, please raise your hand.
- 2 If people raise their hand, facilitate a verbal discussion to address any understanding difficulties. If necessary, re-formulate the issue at hand.
- 3 Say this:
 - a Please register your opinion in the Opinion Meter.
 - b Now let's talk about the issue. If you hear anything that changes your mind in either direction, shift your vote accordingly. We will keep talking until we've reached some sort of consensus on this issue.

Insights on MoodRing

The MoodRing thinkLet let's a group decide whether further discussion is necessary or if they can stop talking and move forward. It is a very quick, very simple variation on Red-Light-Green-Light. If the group starts with a mix of opinions, they can keep talking. Most of the time, as they talk, opinions will converge. Once they have converged, the conversation is over. It is possible that opinions could polarize. If they do, consider using the PointCounterpoint thinkLet to break the impasse.

If you pay close attention to the conversation, you may notice that as it proceeds, people begin to question the meaning of the opinions they register.

“What does a “1” really mean?”

“When you say “3”, what does that mean?”

This is a positive step toward consensus. People will define and redefine the numbers in ways that let them reach consensus. It may be useful to write their definitions on a white board on in a GroupSystems activity so they can keep track of them.

You may also notice that people begin to redefine their original positions in ways that allow others to buy into them. They may even redefine and restate the issue. That's OK, so long as they don't get sidetracked onto a completely different topic.

You may occasionally need to remind people to register their current opinion in the Opinion Meter tool.

MoodRing Success Stories

A group of senior officers at a large Air Force in the Western United States was charged with starting an information center for the base. Almost immediately the group polarized over the fundamental mission of the center. One faction thought the center should be a library or a clearinghouse for the base, reacting to requests for information. The other faction thought the center should be a proactive service, looking for opportunities to provide information to people who needed it, but had not yet asked for it.

The group decided to hold a marathon MoodRing discussion to break the impasse. They posted a 1 to 10 vote, saying that a 1 indicated a preference for the clearinghouse model, while a 10 indicated a preference for the proactive service model. At the beginning of the discussion, opinions were polarized. As the discussion unfolded, opinions began to drift away from the polls. By the time the conversation ended 2 hours later, consensus clustered around the “4” value. The group decided that the center should be a clearinghouse that would provide proactive service to people who asked for it.

What's in a Name?

We named this thinkLet after the novelty ring that appeared on the market in the 1960s. The ring was supposed to reveal the mood of the person wearing it. If the person felt depressed, it was said, the ring turned black. If the person felt happy, the ring turned blue. If the wearer felt angry, the ring was supposed to turn red. In fact, the colors were sensitive to temperature rather than to mood. Nonetheless, like the legendary mood ring, this thinkLet reveals the attitude of group members in real time. It provides insight into the mood of the team.

PointCounterPoint

Choose this thinkLet...

- ... to help break an impasse in a badly conflicted group.
- ... to help find common ground between polarized factions.

Do not choose this thinkLet...

- ... to enforce consensus on a particular issue. Rather, PointCounterPoint is meant to uncover new lines of thought to help solve a dispute.

Overview

Participants engage in a three-step structured activity where they first enter their strongest argument in favor of their own position, second, they argue against somebody else's position, and third they build an argument to bridge between two seemingly mutually exclusive positions taken by others in the group.

Inputs

A debatable proposition.

Outputs

- 1 A set of arguments, counterarguments, and resolutions around a debatable proposition.
- 2 Movement from extreme positions toward a middle ground.

How to use PointCounterPoint

Setup

- 1 Post a debatable proposition as the brainstorming question in Electronic Brainstorming.
- 2 Create one brainstorming page for each participant, plus one or two extra pages.
- 3 Change the group settings so that the brainstorming question appears as the heading at the top of every page.

Steps

- 1 Explain the debatable proposition to the group. Refine it if necessary.
- 2 Say this:
 - a Each of you has a different electronic page in front of you. Notice that the <debatable proposition> appears at the top of your page.

- b Please think carefully about that proposition. Then enter the single strongest argument you can make in favor of your position. You will only have 400 characters, so be concise. What is your single strongest argument in favor of your own position with respect to this issue?
 - c When you finish typing your single strongest argument, do not submit it to the group. Just cross your arms so I know you are done.
 - 3 Watch for everybody to finish their first argument, then say this:
 - a Please press the F9 key to swap pages. Keep pressing F9 until you see somebody else's argument on the screen in front of you.
 - b Now read the argument in front of you.
 - c Regardless of your actual position, type the strongest single argument you can against the position you see on the screen.
 - d When you finish typing your single strongest counterargument, do not submit it to the group. Just cross your arms so I'll know you are done.
 - 4 Watch for everybody to finish, then say this:
 - a Now press F9 to swap pages. Keep pressing F9 until you get a page with somebody else's argument and somebody else's counterargument.
 - b You should now each see a page containing an argument and a counterargument. If you have been doing your jobs well, those two arguments should be mutually exclusive.
 - c Now I want you to build a third argument that bridges between those mutually exclusive positions.
 - d When you finish, do not submit your third argument to the group. Just cross your arms so I know you are done.
 - 5 Watch for everybody to finish. Then say,
 - a Now press F9 to swap pages again. Keep pressing F9 until you get a page that has none of your own contributions on it.
 - b Does anybody see any interesting point-counter-point-resolutions that they'd like to share with the group?
 - 6 Moderate a discussion of the arguments and resolutions on people's screens. Focus attention of any common ground that emerges from this discussion.

Insights on PointCounterPoint

During the first step in PointCounterPoint, people don't have any trouble making their first argument. They tend to do so quickly, and with flourish, usually in less than five minutes. The second step slows them down a little. They have to think a little and grumble a little (see the paragraph). The instructions for the third step can leave them with their mouths open and a sick look on their faces. What? Bridge two mutually exclusive

positions? Can that be done? Why should I? It's great fun for the moderator to watch. Just stand your ground and insist they try. They'll really have to think (in some cases for the first time). Good things tend to come out of it.

Reluctant Arguers. When you get to the second step, where people must enter a counterargument, it is very likely that you will be asking some of the participants to argue against a position they actually agree with. Don't let them off the hook. Insist that they make a strong counter argument by saying something like,

"When you leave here you are going to want to convince people to agree with your position, so you had better think about the strongest case someone could build against it. I don't care what you really believe, as an intellectual exercise try to demolish the argument you see on the screen in front of you."

In fact, people do a pretty poor job of arguing against their own positions, but it's worth getting them to try, as you will read in the next paragraph.

The magic of PointCounterPoint. The magic of PointCounterPoint can be found in the psychological research on persuasion. Oops, duck! We can't stop ourselves, we're lapsing into academic language:

"Both pro-attitudinal and counter-attitudinal advocacy weaken polarization."

Sorry. We feel better now. We'll try not to let that happen again. What we meant to say is that if you can convince people to argue very strongly in favor of their own positions, or very strongly against their own positions (or preferably both), they will cease to be such dogmatic pains-in-the-neck, and will be more willing to consider the possibility that some middle ground exists. With PointCounterPoint you soften them up, then you send them hunting for the middle ground. It has been pretty useful in several situations

A Final Free-for-all. Occasionally you'll find a group that really wants to keep exploring the issues after a PointCounterPoint. Sometimes after the initial oral discussions we let them do some FreeBrainstorming, and then the wrap up with more oral discussion of the results. We're very careful to keep the oral discussion focused on explaining the logic presented on the screens, so that the discussion doesn't devolve back to dogmatic unsupported pronouncements and name calling.

PointCounterPoint Success Stories

The first time we tried the Crowbar technique was at a high-school in Washington, D.C. A "religious war" had broken out over the question of whether to retain or abandon the football program at the school. On one side were the people who argued that the school had no money to continue supporting the sport, and the people who argued that football was violent, sexist, and uncivilized. On the other side were people who argued that football was an important part of the cultural heritage, and that it taught teamwork, loyalty, and discipline.

During the first step, nearly everybody in the 19-person group started with a different argument in favor of their position. In the second step the counterarguments were as diverse as the arguments. However, in the third step, nearly three quarters of the group suggested the same common ground: turn football into a club sport instead of a school-sponsored sport. Because so many people had suggested the same common ground, it was clear that both factions could support the compromise position. The problem was resolved.

What's in a Name?



One could say that the PointCounterPoint thinkLet derives from the Hegelian Dialectic: thesis, antithesis, synthesis. However, in order to say that, one would have to lapse into pretentious-sounding academic language, which we would never do. We simply call this thinkLet PointCounterPoint because that's how it goes: make a point, make a counterpoint, find a resolution.

Red-Light-Green-Light

Choose this thinkLet...

- ... to keep constant track of changing patterns of consensus within the group
- ... to keep discussion focused on just the issues where the group has the highest levels of disagreement.
- ... as a follow-on to a MultiCriteria thinkLet

Do not choose this thinkLet...

- ... if consensus on the issues at hand is not of the essence.

Overview

Participants render opinions or evaluations on one or more issues on one or more criteria. They then try to explain why big differences of opinion might have occurred. As the argument ebbs and flows, the participants change their votes in real time. Discussion continues until the group agrees they have sufficient consensus to proceed.

Inputs

Results of a MultiCriteria poll.

Outputs

- 1 Consensus within the Group.
- 2 A prioritized set of items.

How to use Red-Light-Green-Light

Setup

- 1 Display the results of a MultiCriteria poll on the public screen.
- 2 Display the voting ballots on the screens of the participants.
- 3 Set the Threshold of Concordance to 0.3. Check how many cells in the results matrix have turned red. Adjust the Threshold upward to increase the number of red blocks and downward to reduce the number of red blocks, until you have about as many red blocks as you have time to discuss.

Steps

- 1 Say this:
 - a The group has more consensus in the cells that appear in green, and less consensus in the cells that appear in red.
 - b We are going to discuss the items in Red, where you have less consensus.

- c As we talk, when you hear anything that changes your opinion one way or the other, please change your vote and re-submit your ballot.
 - d When we have achieved more consensus, the cell will turn green.
 - e We will keep discussing each red cell until it turns green. Then we will move on to the next red cell.
- 2 Open the cell summary chart and graph for the first red cell you will discuss.
 - 3 Briefly articulate the pattern of votes.
 - 4 Use the Crowbar script like this:
 - a Without telling me how you voted, what reasons might exist for rating <item name> high on <criteria name>, and what reasons might exist for rating <item name> low on <criteria name>.

Insights on Red-Light-Green-Light

The Red-Light-Green-Light thinkLet uses the red and green cells as a scoreboard to let the group know where they stand in their discussions. *A few words about the Threshold of Concordance.* Part of the magic in this thinkLet comes from how you set the Threshold of Concordance. (For the mathematicians among us, the Threshold of concordance standardizes the Standard Deviation to adjust for the range in the voting scale. There, aren't you glad you know that?).

The higher you set the threshold, the more the group will have to agree before the cell will turn Green. If you set the threshold to 1.00, the group will need complete unanimity to turn the cell green. If you set the threshold to 0.00, the cell will turn green no matter how the people vote. So how do you decide where to set the threshold? Some facilitators we know work through an exercise with the group to get an up-front agreement from them about how high the coefficient of concordance should be in order to say that the group has consensus. They show the group a variety of voting patterns and say, "Does this look like consensus? How about this one? Does this one look like a group that is in agreement?" This lets the group zero in on a comfortable setting for the threshold.

We don't go through such an exercise for three reasons.

- 1 We usually don't use the numbers in this vote to make a decision. We use them to provoke conversation. Therefore it's not important to know in advance what exact level constitutes consensus.

- 2 The numbers are only an approximation anyway. We always follow up with a reality check that leads to the actual decision. Something like,
 - a “Does the order of this list still make sense after our conversation?”
 - b “It looks like you’ve got pretty good agreement on the top five items on this list. Shall we carry them forward to our next activity?”
 - c “After all this conversation it looks like you still agree that the top item on the list is still the best choice. Is it the will of the group to move forward with that choice?”
- 3 No matter where you set the threshold, you’re only going to discuss as many cells as your time allows. You may as well just set the threshold accordingly. You’ll discuss the items with the most disagreement, and then move on.

Freedom. You don’t have to discuss all the red cells. We once had a group of product designers who had rated items on a scale from 1 to 10. They decided time was so short that they would only discuss the red cells that had a score of 7 or higher. Said one member of the team, “Who cares if we disagree how on how bad a bad idea is. Let’s focus on getting consensus on the good ideas.”

Red-Light-Green-Light Success Stories

We frequently work with teams of people who must negotiate the requirements for new information systems. We typically begin with a brainstorming activity where stakeholders respond to the prompt, “What must happen for you to come out of this project as a winner?” We FastFocus the resulting comments into a clean list of “Win Conditions,” which we feed into a Red-Light-Green-Light thinkLet. In one case we conducted this process with the management, development team, analysts, and customers of a small software development house that was just beginning to plan a new release for their core technology. The team rated 250+ items on two criteria: “How easy?”, and “How important?” Of those, about 2 dozen got a “red light” because there were strong patterns of disagreement among stakeholder opinions. One item about the choice of computer languages for the project had a particularly high level of disagreement. As usual, we asked the group, “What reasons might exist for rating this item as very important, and what reasons might exist for rating it as very unimportant?” A whole range of issues emerged. The programmers wanted to work in the latest language so they could maintain their professional skills. The customers didn’t care about the development language. They just wanted something that worked. The marketing people were adamant that a language be chosen that would allow the system to operate on many different kinds of computers. The management team just wanted the project to be finished on time and under budget, and were indifferent about the choice of languages. In the

end, the team agreed that although the issue was not important to all stakeholders, they could now understand that it was very important to the project as a whole. They changed their votes and the item got a “green light”. They moved on to other issues.

What's in a Name?

Red-Light-Green-Light is a game played by small children in the U.S. All the children but one line up against one wall. A child playing the Traffic Light stands on the opposite wall. The Traffic Light turns his or her back on the group and yells, “Green Light!” The other children move forward as swiftly as they can. The Traffic Light yells “Red Light” and spins back toward the group. Any children who are still moving are out of the game. They the cycle of Red-Light-Green-Light until one child reaches the opposite wall. That child wins, and becomes the Traffic Light in the next round.

ThinkLets for Combinations

Could-Be-Should-Be

Choose this thinkLet...

- ... to move from a poor understanding of complex issues to a better understanding of complex issues.
- ... to create a hierarchical outline of all aspects and subaspects to consider with respect to a complex issue.

Do not choose this thinkLet...

- ... to document knowledge that is already well understood by the participants. Consider using the BranchBuilder thinkLet instead.

Overview

The team develops an outline through several cycles of brainstorming and converging. For each reading of the outline they brainstorm ideas that “could be” subheadings. Then they converge on the ideas that “should be” subheadings.

Inputs

None.

Outputs

A tree or outline representing a complex set of issues.

How to use Could-Be-Should-Be

Setup

Set up Group Outliner for the participants to enter comments, but not topics.

Steps

- 1 Post the title of your project as a single node on the outline. The title should express purpose of your effort. For example, if the group is conducting an action planning activity, you might post the title, “Action Plans”
- 2 Be sure the group understands the purpose of the effort
- 3 Double-click the title to open a comment window. Match Views with the participants to open the same comment window on their screens.

- 4 Give the group a “Could-Be” prompt to elicit the big issues surrounding your task. For example, if your team is conducting an action planning activity, you might say,
 - a Upon what issues could our team take action?
 - b What could we do in order to achieve our goals?
- 5 All participants to brainstorm the big issues on the same comment window for a few minutes.
- 6 Close the comment window on the public screen, but leave it open for the participants.
- 7 Get ready to add subheadings to the main topic on the outline.
- 8 Give the “Should-Be” prompt to converge on the main issues in your problem space. For example, if your team is conducting an action planning activity, you might say:
 - a You spent a few minutes brainstorming about what actions this team could take to achieve our goals. Looking at the screen in front of you, would anybody like to propose an action that we should take as a team?
- 9 Moderate a FastFocus-like discussion to elicit subheadings for the outline.
- 10 Select on of the subheadings and repeat the Could-Be-Should-Be pattern of brainstorm and converge to create sub-sub headings. Repeat the process for each subheadings. If necessary conduct Could-Be-Should-Be on the sub-sub-headings to create yet another layer of detail. Continue until all sections of the outline have sufficient detail.

Insights on Could-Be-Should-Be

Could-Be-Should-Be is a combination of two other thinkLets: OnePage and FastFocus. It uses the power of these two thinkLets arranged together in just the right way to help a team wade through a complex quagmire of ideas toward a clear understanding. It helps them manage information overload by guiding to them develop successive layers of detail in bite-sized chunks. Be sure to read the Insights section of the FastFocus thinkLet to fully understand the value of Could-Be-Should-Be. With Could-Be-Should-Be a team alternates between moments of letting their minds run free (Could-be) and moments of reflecting and converging (Should-Be). The periodic shifting of gears helps keep the mind fresh and keeps the task from becoming overwhelming.

There are hundreds of different tasks to which Could-Be-Should-Be can be applied, including action planning, strategic planning, team document authoring, and curriculum development, to name but a few. Any time the team needs to bring structure to complex issues, this thinkLet may be handy.

Could-Be-Should-Be also assures that the content of the outline remains fully under the control of the facilitator. The team provides the ideas, but

the facilitator makes sure that ideas are expressed clearly, without redundancy and that they are relevant to the task at hand.

The Magic of Could-Be-Should-Be. Could-Be-Should-Be inherits the magic of FastFocus, but it has its own magic as well. This lies in having the participants brainstorm on the comment windows, and then having the moderator elicit subheadings orally. As people brainstorm, they come up with many ideas, but as they talk, they filter and summarize, and they create a shared understanding of each subheading they add to the outline.

Could-Be-Should-Be Success Stories

We originally developed Could-Be-Should-Be to support a collaborative strategic planning process at the U.S. Navy's Naval Special Warfare Command (NSW). The commanding admiral, his chief-of-staff, and about a dozen other senior officers met quarterly to develop and assign action items for achieving each of their seven strategic goals. They posted the seven goals to in the GroupSystems Group Outline tool. For each goal they conducted the Could-Be to generate possible actions, and then conducted the should-be to define strategic initiatives. For each strategic initiative they conducted the Could-Be to brainstorm possible action items, and then conducted the Should-Be to craft fully developed action items, including:

An action

A leader (the person responsible for seeing the task gets finished)

A deadline (Date and time)

A deliverable

A deliver-to person (to whom the leader is accountable for results)

Measures of merit (to judge whether the task has been done well).

As the planning process unfolded over several months, the patterns of action item assignments suggested to the team that they should restructure the headquarters staff to better achieve their goals. The content of the action items led the team to conclude that they change the entire command structure of the organization to better serve the needs of the fleets. Could-Be-Should-Be allowed NSW to wrestle with the complex ideas surrounding their new strategic directions and see them through to actions.

What's in a Name?

Could-Be-Should-Be is named for the patterns of interaction in the thinkLet. First they diverge on what could be, then they converge on what should be. They do this over and over until they have made a manageable multi-layered tree out of their complex and ill structured issues.

SevenUp

Choose this thinkLet...

- ... when a brainstorming activity yields dozens or hundreds of comments, from which you wish to extract the most promising set.
- ... when you would like to make note of, and perhaps discuss the causes of disagreements early on, but then to focus on patterns of agreement to gain closure and move on to the next step.
- ... when you want to be sure you can converge in no more than 2 steps.

Do not choose this thinkLet...

- ... when you want a team to focus only on their common ground. Use a BroomWagon instead.
- ... when time is very short. Use a BucketVote instead.

Overview

In this thinkLet you move through two different polling activities to converge from many concepts to the few worthy of more attention. In the first activity people rate each idea on a seven-point agree disagree StrawPoll. All ideas that get an average rating of 5 or above are carried forward into a CheckMark activity where users may check up to seven of the remaining items. From the results, the top seven (or so) items are carried forward to the next step.

Inputs

An un-prioritized, un-structured list of ideas from a brainstorming activity.

Outputs

Seven (or so) concepts worthy of further attention.

How to use SevenUp

Setup

- 1 Post the brainstorming comments to Vote.
- 2 Configure Vote with a seven-point agree-disagree scale.

Steps

- 1 Say This:
 - a Each of you has a ballot with all our brainstorming comments on it.

- b Read each comment and rate it on a scale from 1 to 7. 1 means you strongly disagree that the comment is worthy of further attention in our process. 7 means you strongly agree.
- 2 Optional: When the results are in, conduct a Crowbar to explore the roots of any major disagreements that emerged in the polling patterns.
- 3 Move all comments that had a rating of higher than 5 into a new ballot. Set up the ballot for checkmark polling.
- 4 Say This:
 - a You now have a ballot with the highest ranked ideas from your brainstorming activity.
 - b Please checkmark up to seven comments that you judge to be worthy of further attention.
- 5 When all votes are in, say this:
 - a Here are the results. Let's take the top seven (or so) items forward into our next step.

Insights on SevenUp

The magic of SevenUp is that it provides you with several paths you can follow, and the assurance that no matter which you follow, you can find your way to a predictable end point in a predictable time. The initial poll gives you an easy way to strip off the low rated concepts. It's quick. However, if you choose, you may side-track into a Crowbar to explore the root causes of any large disagreements that emerge. There is a bit of a risk that such discussion might bog down in unproductive thrashing. However, at any point when you decide that it is time to stop exploring differences and move on, the CheckMark gives you an easy path from focusing on disagreement to focusing on common ground. The final step gives you a predictable result. You will finish with seven (or so) high-rated items.

Of course, you need not be rigid about any of the numbers in this thinkLet. You can use a five-point agree disagree. You can finish with the top 10 if you prefer. The process remains the same, regardless of where you set the numbers. Adjust them to meet the needs of the team.

SevenUp Success Story

Our colleague, Brice Marsh, runs strategic planning sessions from time to time. In those sessions, he asks people to brainstorm key words and phrases that could be included in a mission statement. The teams typically propose about 150 terms that could be included in a mission statement. He runs the team and the key terms through a SevenUp to converge on the terms the team prefers. However, he changes the very last step. Instead of carrying only seven key terms forward into the next step, he brings forward any term that received more than one or two checkmarks. Typically, he reports, he carries 40 or 50 key terms forward for a group to

use when crafting their mission statement. Using SevenUp as his convergence technique, he can usually move a team through drafting and agreeing to a mission statement in under two hours.

What's in a Name?

SevenUp is so named because in the end seven items (or any other number you choose) move up to the top of the list, and then move on to the next step in your process.