

Appendix: Conducting a Retrospective

To accompany "[Team Retrospectives — for better iterative assessment](#)" by Ellen Gottesdiener

- [Defining Ground Rules for a Retrospective](#)
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Defining Ground Rules for a Retrospective

People in groups take on norms of behavior. *Norms* are standards of interaction and codes of conduct that team members adhere to when they work together. To learn, people need to adopt healthy norms. Healthy norms are the basis for conducting open and honest debriefings and are useful for any team gathering -- team meetings, requirements workshops, peer and customer reviews, and interim and end-of-project retrospectives.

Under ideal circumstances, healthy norms can emerge spontaneously during a project. Under other circumstances, though, unhealthy norms waste time and drain mental energy. Unhealthy norms include failing to share information, being late to meetings, changing baselined deliverables without notification, having secret meetings after the meeting, or coming unprepared to reviews or group meetings. These behaviors jeopardize team and customer relationships, hamper teamwork and collaboration, and can ultimately destroy your project.

One way to establish healthy norms is to explicitly define them as *ground rules*, or guidelines for participation. Ground rules communicate the team's commitment to work together. Without them, team members may make false assumptions about the words and behavior of others. This often results in miscommunication, poor group process, project delays, and low-

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quality team deliverables. Table A-1 lists some ground rules teams have found useful.

Table A-1: Example Ground Rules for Retrospectives

Ground Rule	Usage/Circumstance
Tell the truth without blame or judgment.	Emotions are high, and people tend to regress into blaming.
Keep what's shared here confidential -- and agree unanimously on what will be discussed outside.	Team members fear retribution by management or are afraid their comments will be repeated out of context.
Listen, and then ask clarifying questions.	Team members engage in <i>overtalk</i> , meaning that they interrupt each other and don't fully hear other points of view.
Be on time and be prepared.	Team members arrive late, or do not bring information, materials, and data needed for the session.
Test inferences and assumptions.	Team members are too busy or focused on their own work to see the whole story or know others' experiences, leading them to erroneously interpret others' behaviors.

Here are some questions that can help you and your team define ground rules either before a retrospective session or at its opening, during the *readying* step:

- How would you describe the working atmosphere of our team?
- What are our strengths? In what ways are we particularly effective?
- To what extent are we honest and open?
- Do we ever stop and evaluate how we're doing?
- What's the best thing about this team? The worst thing?
- Are there any topics that are off-limits, or hidden agendas that you are aware of?
- What interactions are wasting our team's time right now?
- What has been tried that failed?
- How do we typically make decisions?
- Are there any questions about ground rules that I should be asking but have not yet asked?

Explicitly discussing team behavior in the context of establishing ground rules has healthy and useful consequences for the team because it

reinforces mutual responsibility for making the team work well together. Honestly evaluate how personal interactions are working. This will help team members begin to relax and have more fun together -- and that's when work really gets done.

References

Ellen Gottesdiener, *Requirements by Collaboration: Workshops for Defining User Needs*, Addison-Wesley, 2002.

Roger Schwarz, *The Skilled Facilitator*, second edition, Jossey-Bass, 2002.

Questions for Each Step of a Retrospective

Here are the phases of a retrospective (adapted from Kerth, 2001):

1. Get ready.
2. Explore the past.
3. Understand the present.
4. Decide the future.
5. Retrospect the retrospective.

Table A-2 shows questions to ask and answer for each of these steps.

Table A-2: Questions by Retrospective Step

Phase	Metaquestion	Subquestions
Readying	What do you want from this session?	What must happen for this session to be a success? What do you want to focus on? What will you contribute to achieve your desired outcome? How safe do you feel?
Past	What happened?	What did you observe during the iteration we're retrospecting? What events do you recall? What did you see and hear? What were the significant occurrences? What surprised you? What stands out? How did you feel? How did you react?

Present	So what?	What did you learn during the iteration we're retrospecting? Why is it important? How does it inform the work we are about to start? What puzzles you? Why? What ify?
Future	Now what?	How do the things you've learned inform our continuing work? What do we want to continue? How can we leverage our strengths? What will you do differently? What will the team change? What support do we need? What will you commit to do? How will we check our progress?
Debrief	How did we do?	Was this session a valuable experience? What did we do well? What should we do more of? Less of? How did our facilitator help us? When were we interacting well? What should we remember to do in our next debrief? What should we change in our next debrief?

Retrospective Questions by RUP Project Phase

The four phases of the Rational Unified Process, or RUP, are as follows:

1. Inception
2. Elaboration
3. Construction
4. Transition

Table A-3 shows questions to ask and answer for each of these phases.

Table A-3: Questions by RUP Phase

Project Phase	Potential Retrospective Questions
Inception	<ul style="list-style-type: none"> • How well did we delineate and communicate the product vision? • How did we involve stakeholders in creating our vision? • Could we have done it more effectively? • Did we involve stakeholders in a timely and appropriate manner? • Did we have any issues or surprises with the product vision? Why or why not? • Do all stakeholders understand the product vision? • How clear is our scope? How might we make it more clear, if necessary? • How complete and accurate was our business case? • What worked well in our vision workshops? • What could have been better? • What successes and difficulties did we have in identifying the key use cases for the product? • How complete was our analysis of the buy-build-reuse decision? • What obstacles and smooth spots did we experience in defining the candidate architecture? • How complete was our risk analysis? • Are we using risks to guide the project? Why or why not?
Elaboration	<ul style="list-style-type: none"> • Did we select the right strategy for creating our architectural prototype? If so, how did we know? If not, how did we know? • What surprises and jolts did we experience during gathering requirements? • Do we believe our requirements are complete enough? Why or why not? Were there missing or erroneous requirements? How do we know? • What if we had prevented these (if any) gaps in our requirements? What would have happened? • How much did our requirements change, and why? • Which nonfunctional requirements did we

	<p>capture, and which did we not? Did we make the right choices? How do we know?</p> <ul style="list-style-type: none"> • How well did we specify "doneness" or fitness criteria for our requirements? • How did we involve customers? In what ways did that involvement work to our benefit or work against us? • What worked well with our requirements workshops that we should continue to do? What could we do better? • Did we prioritize the use cases appropriately? How do we know? • Did they provide a basis for testing? • Was our architectural prototype sufficient to reduce risk and verify customer expectations? Is so, why? If not, why not? • Did we select the most architecturally significant scenarios to test in our prototypes? How do we know? • What if anything changed about our vision after we reviewed our prototypes? • Did our development case include an appropriate number of iterations? In retrospect, would we have changed that? How? • Did we select the best set of use cases for each iteration? • Did we manage our requirements well? Why or why not? • What is the quality of our architectural design? How do we know? • How did our automated tools facilitate delivery of our Elaboration artifacts?
Construction	<ul style="list-style-type: none"> • What was the quality of our code? How do we know? • How did we do with code inspections and reviews? • How smooth was the transition from Elaboration to Construction? • Did we have sufficient analysis and design knowledge to begin coding? • How well did we plan and execute our testing? • Did we follow our test plan? If not, why not?

- How much did we use our use cases as the basis for test cases and scripts?
- What was missing and what was useful in our requirements and design artifacts for creating testing artifacts?
- Did we test in a timely manner?
- How well did we plan and manage our alpha or beta releases?
- What surprises, if any, did we have about requirements during this phase? How could those have been prevented?
- What are most of the defects about?
- What is the source of our defects?
- How did our development, testing, and configuration management tools and processes work for us? What one thing would you change?
- Did we handle configuration management well?
- Did we involve customers appropriately during Construction?
- How did the testers and developers interact?
- When did the tools get in the way? When did they help us?

Transition

- How well did we make use of beta testing to stabilize our product?
- How smooth was our plan and execution of database conversions?
- Did we define and use appropriate release criteria?
- Was the customer ready for the product? How do we know?
- Were marketing and sales positioned for the roll-out?
- How did we engage them in preparing for Transition?
- What was the quality of the training?
- How effective is the product's support documentation?
- How did we involve our customers in this phase?

End-of-Project	<ul style="list-style-type: none"> • How realistic was our development case? • What are you most proud of in this project? • What are you most regretful or sorry about? • What one moment stands out the most for you? • Did we use our team's skills effectively? • How was management support? • How well did we manage risk throughout the project? • What did we learn about iterative development from this project? • What one recommendation would you make to other teams about their use of RUP? • How did we manage the trade-off between time, cost, quality, and functionality?
All Phases	<ul style="list-style-type: none"> • What happened that surprised us? • What puzzles us? • How well are we communicating with each other? • Are we involving the right people? • Are our customers involved and engaged? • Are we collecting the right metrics? • What one thing do you want to remember to do again in the next iteration?

Positive Questions for an Appreciative Inquiry

Table A-4 shows positive questions you might ask during retrospectives as part of an Appreciative Inquiry.

Table A-4: Sample Positive Questions [1](#)

Topic	Positive Questions -- Past	Examination Questions -- Present	Change Questions -- Future
Compelling communications	Recall a moment in this iteration when communication allowed you and another person to really connect and work exceptionally well together. What were the circumstances? What made that communication compelling?	Consider the various ways we communicate on this project. Which are most effective? Which foster a sense of connection and alignment with our project goals? Which enable us to work together in ways that are mutually satisfying?	Imagine you've arrived at work tomorrow and we've had a miracle -- compelling communication is a way of life on our project! What is different? How does it feel? What did we do to get here?
Getting it done	What has been a high point in this iteration -- in other words, when were you able to be very focused and disciplined to get a deliverable done? What good things came from that deliverable? What were you doing to maintain your discipline and drive?	Consider the moments when we truly "kept our eyes on the prize" in this project, when we adopted a "just do it" attitude and achieved a lot. What are we doing to foster that discipline? How are we promoting that ethic?	If we waved a magic wand and changed the project so that we were consistently working in a "get it done" mode, what would have happened? How would things have changed?
Quality moments	Recall a time in this iteration when you were on the receiving end of a quality moment --when a deliverable or service provided by someone on the team delighted you, as a customer. What was it like?	Describe how we address quality on this project. What allows us to deliver a moment like you described? How do we recognize and foster quality? What are customers' and	What can we learn from these quality moments? How can we apply it to the next iteration? How can we take what you know about creating quality moments and ensure we will sustain

	How did it feel? How did that experience enhance your relationship with that person?	team members' reactions to quality?	them?
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References

Sue Annis Hammon, *The Thin Book of Appreciative Inquiry*, second edition. Thin Book Publishing Co., 1998.

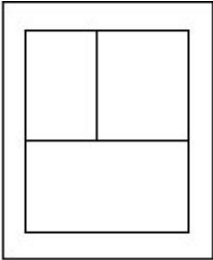
Diana Whitney, Amonda Trosten-Bloom, and David Cooperrider, *The Power of Appreciative Inquiry: A Practical Guide to Positive Change*. Berrett-Koehler, 2003.

Example Retrospective Rituals

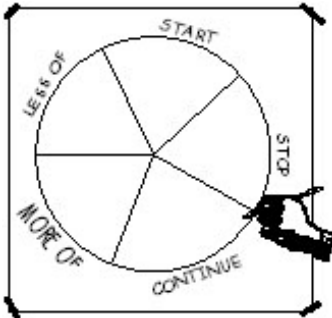
Here are four retrospective rituals that facilitators can use at various points in the retrospective. A skilled facilitator will select rituals that match your team's specific needs and the allotted time of the retrospective.

Name	Temperature Reading
Usage	Any retrospective
Procedure	<p>Provide the following list as the structure for discussion, allowing team members to participate in each phase as they wish. The facilitator describes the purpose of each phase of discussion and encourages team members to participate during each phase.</p> <ol style="list-style-type: none"> 1. Appreciations: Acknowledge, support, and compliment a team member for something she did that had an impact on you or the team. 2. Complaints with Recommendations: No complaint can be offered without a recommendation, allowing the team to solve its own problems and to avoid whining while addressing genuine deficiencies. 3. New Information: Share information you may have that others don't. 4. Puzzles: Share things you are confused about, that don't make sense; don't try to solve them, just surface them. 5. Hopes and Wishes: Focusing on the future, share personal desires for yourself or the project, perhaps allowing people to understand their common needs and ending the ritual in a positive way.

Time	Half an hour to one-and-a-half hours, depending on group size
Materials	Markers, flip chart paper, or index cards and a "sticky wall" for writing down recommendations that require further action
Variations	<ol style="list-style-type: none"> 1. During the Appreciations phase, ask the person offering the appreciation and the person being appreciated to stand. Use the words, "Jim, I appreciate you for y" 2. I like to add a second step: Apologies. This is the time to allow anyone who wishes, to offer an apology or to request an apology. 3. You can vary the sequence or eliminate one of the phases, but always start with Appreciations and end with Hopes and Wishes. For example, another possible sequence is Appreciations, Apologies, Puzzles, Complaints with Recommendations, Hope and Wishes.
References	<p>Virginia Satir, <i>The New Peoplemaking</i>. Science and Behavior Books, 1988, pp. 289-292.</p> <p>Norm Kerth, <i>Project Retrospectives: A Handbook for Team Reviews</i>. Dorset House, 2001.</p> <p>http://www.dhemery.com/articles/temperature_reading.pdf http://www.stickyminds.com/sitewide.asp?ObjectId=2535&Function=DETAILBROWSE&ObjectType=ART</p>

Name	Draw the Iteration [or Phase, Milestone, End-of-Project]
Usage	Any retrospective
Procedure	<p>Provide a piece of poster paper to each participant. Ask them to divide the paper into thirds by creating a horizontal across the middle, then a vertical line in the center of the top section, as shown below.</p> <div style="text-align: center;">  </div> <ol style="list-style-type: none"> 1. Draw: Ask everyone to draw (on top right) a visual

	<p>picture or image-- not text -- that depicts their most important learning for the iteration. Ask everyone to remain silent while they are working on their posters.</p> <ol style="list-style-type: none"> Create a slogan for the picture and write it in the top left section of the poster. List on the bottom of the poster three to five key bullets that crystallize the key ideas in the image. Share each poster. Ask each person (or small team that worked on a poster together) to share the three portions of the poster. Discuss the common themes as well as differences as a group. Decide what action, if any, you want to take for the next iteration.
Time	Twenty minutes to one hour, depending on group size
Materials	Markers, flip chart paper
Variations	<ol style="list-style-type: none"> Have an affinity group (two or four people who want to pair up or who worked in similar roles) create a single poster. Ask the affinity groups to create posters that answer specific questions such as, "What do we want to celebrate and appreciate about the just concluded iteration?" "What was the most significant event that happened during the iteration?" "What scene would you like to depict that you wish had happened, but never did?"

Name	Start, Stop, Continue, More of, Less of
Usage	Any retrospective; also can be used to retrospect the retrospective.
Procedure	<div style="text-align: center;">  </div> <ol style="list-style-type: none"> Draw a circle on a poster, divide it into 5 sections and write the words "start," "stop," "continue," "more of," and "less of" around each section (see below).

	<p>2. Ask: "What should we <i>start</i> doing that perhaps we haven't done yet? What should we stop doing, that's not contributing or is getting in our way? What is working that we want to <i>continue</i> to do? What should we do <i>more of? Less of?</i>"</p> <p>3. Encourage comments in any category. Clarify what category the comment belongs in, and record the comment (or summary of it) on the poster.</p>
Time	5 to 25 minutes, depending on group size
Materials	Markers, flip chart paper
Variation	For large groups, divide into subgroups to focus on one aspect of the iteration or project such as testing, requirements, customer involvement, and so forth. Encourage participants to form cross-functional subgroups (so different roles are represented in each subgroup). Each subgroup creates a poster, as depicted above, in eight minutes. Next, ask everyone to move around the room, reading the various posters silently. Finally, discuss key points and decide specific actions to take for the next iteration.
Reference	Developed by Ellen Gottesdiener, EBG Consulting, Inc., www.ebgconsulting.com

Name	Timeline/Key Events Storyboard
Usage	Full project retrospective
Procedure	Draw a timeline on the wall, with tick marks indicating key time points in the project (e.g., months, or milestones with dates). Ask participants to write, one per card, the key events, or things that stand out in their mind, during the whole project. After each person has a stack of five to fifteen cards, have everyone simultaneously place their cards on the wall, aligning each event with its timeframe. Allow participants to review the wall and then comment on what surprised them in each other's cards, what implications the wall has for them, and what they will do differently in their next project.
Time	One to two hours, depending on the number of participants
Materials	Wall prepared with poster or butcher paper roll, sticky notes or cards, dark markers

Variations	<ol style="list-style-type: none"> 1. Ask participants to form affinity groups and create their cards as a group. 2. Ask participants to write or draw their key events using color-coded cards -- for example, green (pleasurable or fun event), blue (very challenging or worrying), red (frustrating or infuriating), pink (shocking or puzzling), yellow (funny) 3. Rather than write, have participants draw a picture on the card that describes the event visually. After each card is posted on the timeline, allow the individual or team to explain which event the card is depicting. 4. After the team members silently read each others' cards on the wall, ask them to use a marker and draw a "seismograph." Have them move the marker up and down horizontally (use an open area below the cards) to indicate how they were feeling about the project as time progressed.
Reference	Norm Kerth, <i>Project Retrospectives: A Handbook for Team Reviews</i> . Dorset House, 2001.

Notes

¹ Adapted from Diana Whitney, David Cooperrider, Amonda Trosten-Bloom, and Brian S. Kaplan, *Encyclopedia of Positive Questions, Volume I: Using Appreciative Inquiry to Bring Out the Best in Your Organization*. Lakeshore Communications, 2002.



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