

Attendees' perceived balance between "getting" and "giving" at the 2016 Earth Educators Rendezvous: Results from lightning interviews

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v.2.0 14 sept 2016

Summary:

Thirty percent of the attendees at the 2016 Earth Educators' Rendezvous participated in a brief face-to-face interview probing their perceived balance between getting value out of the meeting and giving back to the meeting, along with their satisfaction with that balance. The vast majority of respondents (98%) reported that they had both given and gotten, with "getting" outweighing "giving" for most respondents (69%). All but a few respondents (89%) were satisfied with the balance that they had experienced this year, with the non-satisfieds evenly split between people who want to give more and get more. Newcomers (defined by no prior SERC workshop attendance) self-reported especially high get:give ratios, while veterans tended more towards giving. These findings are compatible with the interpretation that the Rendezvous is contributing to building and strengthening a geoscience education "community of practice" characterized by mutually beneficial reinforcing feedback loops.

Introduction and background:

The 2016 Earth Educators' Rendezvous was held at the University of Wisconsin, Madison, on July 18-22, 2016. During the meeting, InTeGrate evaluator Kim Kastens conducted "lightning interviews" (name intended to convey brief and illuminating) with a convenience sample of meeting attendees. Like the similar interviews conducted at the 2015 Rendezvous,¹ these were intended to probe the Rendezvous' effectiveness at building and strengthening a "Community of Practice" among Earth/environmental educators.

Communities of Practice are "groups of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly."² Kastens (2016)³ hypothesized that the driver that keeps effective communities of practice going is a set of reinforcing ("positive") feedback loops that interact in such a way as to ratchet up both individuals' capacity in the practice, and the community's collective capacity in the practice. For this to work, the members must feel that they are getting something of value out of CoP interactions; otherwise they won't keep coming and the CoP will fade away. At the same time, they must also contribute to the CoP's activities, because this is the driver for increasing the community's collective capacity.

¹ Weaving new threads into the GeoEd Community of Practice: Report on interviews at the 2015 Earth Educators' Rendezvous. Available at: http://d32ogoqmya1dw8.cloudfront.net/files/integrate/about/2015_eer_interviews.pdf

² Wenger-Trayner, E., & Wenger-Trayner, B. (2015). Communities of practice: A brief introduction. <http://wenger-trayner.com/introduction-to-communities-of-practice/>

³ Kastens, K. (2016). Reinforcing feedback loops power effective communities of practice. *Earth & Mind: The Blog*. Available at: <http://serc.carleton.edu/earthandmind/posts/commofract.html>

The 2016 lightning interviews probed the balance that Rendezvous attendees experienced between what they were getting out of the meeting and what they were contributing to the meeting, and how satisfied they were with that balance.

Methods:

Potential interviewees were identified by their name badges, and approached in the meeting corridors and session rooms during breaks. The interviewer asked for a few minutes of their time to comment on their experience at the Rendezvous. Attendees had already signed a research consent form as part of their registration process.

The interviews were conducted between Tuesday afternoon and Friday afternoon of the M-F meeting. Only people who had already been at the meeting for at least one day were interviewed. The main interview venues were the main lobby throughout the meeting, Tuesday poster session, Wednesday Plenary and subsequent photo shoot, Thursday morning poster setup time, Thursday poster session, and Thursday and Friday session breaks.

SERC staff and the Rendezvous Program Committee and local host were declared ineligible for this study, leaving a total of 311 potential interviewees. Ninety-five interviews were initiated. Three were not completed, one because the session began and two because after hearing some questions the respondents said they would prefer to complete the interview later in the week. Thus the 92 completed interviews represent 30% (92/311) of the eligible Rendezvous participants.

Responses were recorded by hand into a notebook, and later transferred into an Excel spreadsheet of meeting participants provided by SERC. Following the meeting, SERC provided three additional inputs into the spreadsheet: the total number of SERC-supported workshops the individual had previously attended, how many times they had been a workshop leader/presenter at a SERC-supported event, and whether they had also attended the 2015 Rendezvous.

Interview Protocol

Wording varied slightly from participant to participant. Below is the basic script with comments on variations and responses.

Interviewer’s statements and questions	Notes
I’m Kim Kastens, and I’m the external evaluator for InTeGrate. I’m doing mini-interviews with some Rendezvous participants. Could I interest you in answering a few questions about your experience at the meeting; it takes less than five minutes? [confirm that they have been at EER for at least day]	Varied depending on whether I knew the respondent and whether they seemed to want some other introductory chatting.
So far, have you gotten something out of the Rendezvous that you expect to be able to use in your work?	Every respondent except one responded in the affirmative. Many were beyond affirmative towards effusive, such as “Absolutely,” “Definitely,” “Oh, lots.”
Could you give me one example?	These responses were recorded in brief but were not coded. The intent of this question was (a) to ensure that the respondent and interviewer had the same view of what the question meant, and (b) to bring forward a salient example of “getting” into the respondents’ awareness.

And so far, do you feel that you have been able to give back something to the Rendezvous or to individuals here at the Rendezvous that <i>they</i> will be able to use in their work?	Some respondents seemed to be being modest at first, beginning with “I hope so,” or “I think so.” Given more time to reflect, the initially cautious responses firmed up, and every respondent except two came up with at least one small “giving” episode.
Could you give me one example?	As above, these responses were recorded in brief but were not coded. The intent of this question was (a) to ensure that the respondent and interviewer had the same view of what the question meant, and (b) to bring forward a salient example of “giving” into the respondents’ awareness.
So we have an example of something you have been able to get from the Rendezvous and an example of something you have been able to give to the Rendezvous or to other Rendezvous participants. (<i>hand gestures for give and get</i>) Now, would you be able to give me a sense of the ratio, the balance, between what you have gotten out of the Rendezvous and what you have given to the Rendezvous so far? (<i>hand gesture for balance</i>) <i>[if no estimate so far]</i> I can use the qualitative answer you have given me: that you have [given more than gotten / gotten more than given.] But some people have been able to estimate a number, like they might say 90:10, or 60:40.	Usual response was to start by assessing which was more: e.g. “I definitely getting more than I am giving” or “I think I am contributing more than I am giving at this meeting; I am doing [X], [Y], and [Z].” Some people then went spontaneously on to estimate a numerical ratio. If not, I went on the follow-up question. The vast majority (87/92) of respondents did come up with a numerical estimate. In addition, three gave an unambiguous qualitative response that one was more than the other.
And finally, are you satisfied with the balance between getting and giving that you have been experiencing here at the Rendezvous, does this ratio seem about right to you?	Some people spontaneously spoke about the balance they had experienced at last year’s Rendezvous, or other scientific meetings, or what balance they would like to achieve in the future. I tried to capture this information about the past and the future, while also pinning them down as to their satisfaction with this year’s Rendezvous.
<i>[If not satisfied]</i> What would be a better balance for you?	I recorded these answers as “Wants to get more” and “Wants to give/contribute more,” which is what they typically said; I didn’t try to get a numerical estimate.

Almost none of the respondents appeared to misunderstand or struggle to understand the questions. Some raised philosophical issues about whether an interaction can necessarily be classified as “giving” or “getting, saying things like “sometimes it’s a two-headed arrow,” or it’s been a “60:60 ratio” with some interactions being beneficial to both parties. However, the idea that a meeting such as the Rendezvous could be experienced as a balance between “giving” and “getting” seemed acceptable and perhaps interesting to most respondents, and most seemed quite comfortable discussing this balance.

Findings:

The overwhelming majority (90/92) of the respondents stated that they had both gotten something from the Rendezvous that they would be able to use in their work and had given/contributed something to the Rendezvous or to a person at the Rendezvous. One exception

said that the Rendezvous had turned out to be a mismatch with respect to discipline and thus he was neither giving nor receiving; the other exception felt that she had received but not given.

A majority of the respondents said that they felt they had gotten more out of the Rendezvous than they had given back (figure 1). This includes 60 who provided a numerical estimate plus three who gave a qualitative response, for a total of 69% (63/92). Collectively, the respondents clearly do not experience the Rendezvous as a zero-sum game; rather, as a group, they feel they are getting more than they are giving. A few spontaneous comments provide some insight about why this might be. The first is about the asymmetry of information: I know the value to myself of what I am getting, but I can't really know the value to the other people of what I am giving. The second is about asymmetry of group versus individual: There are many other people providing information and resources to me, but there is only one of me; I'm outnumbered.

Nineteen percent (17/92) reported that the balance between giving and getting was 50:50, and in fact this was the single most common response. Only 10 respondents (11%) felt that they had given more than they had gotten.⁴ Many attendees who reported giving more than they had gotten back fell in one of two profiles: either long-established members of the geo-ed community or individuals who had come to the Rendezvous to disseminate a specific piece of work.

The last question in the interview asked if the respondent was satisfied with the balance between "getting" and "giving" that they had experienced at the Rendezvous. Regardless of what balance they had reported, the vast majority of respondents were satisfied with that balance (figure 2). The "satisfieds" included 77 who had provided a numerical estimate of their experienced balance plus 3 who had provided qualitative responses, for a total of 87% (80/92). Four respondents would have preferred more "giving." All of these fell at the "getting" end of the distribution, with get:give ratios between 75:25 and 90:10. Three people would have preferred more "getting," and three did not answer or were unsure.

Several people spontaneously compared the get:give balance that they experienced this year with what they remembered experiencing last year or that they aspire to for future years. Eight out of nine of such reports described a trajectory across time towards more giving relative to getting. Three people said that this year they were contributing more than last year, for example: "this year is 50:50; last year was 90:10 get:give. This is great; I feel like I am a more valuable member of the community." Five people said that at future Rendezvous they want to contribute more, for example "Next year, I want to propose a session." These 5 were not dissatisfied with the balance they were experiencing at the 2016 conference; rather they conveyed the sense that they expected to have the competency and motivation to make a more ambitious contribution in future years.

Get:Give ratio also varied systematically according to how much prior experience the attendee had with previous Geoscience Education workshops. A number of organizations host professional development workshops for geoscience educators, and we have no way of knowing people's lifelong total workshop attendance history. However, we do have a record of how many SERC-supported workshops each person had attended prior to the 2016 Rendezvous (including

⁴ Percentages do not sum to 100% because of two unclassifiable individuals: the person who had neither given nor gotten, and another interesting individual who reported a balance of 60:60, saying that the overlap represented interactions that were beneficial both to himself and the other person.

the 2015 Rendezvous). We also know whether the person played a leadership role at prior workshops, either as co-convenor or as invited presenter. We split the sample according to prior workshop attendance, defining “newcomers” (n=25) as having attended no prior workshops, “mediums” as having attended 1-4 prior workshops (n=41), and “veterans” as having attended 5 or more prior workshops (n=25). On average, the newcomers reported get:give ratios that leaned more strongly towards “get” (72:18) than did the veterans’ (56:44), with the mediums falling in between (Table 2). Splitting the sample slightly differently, we can define “leaders” as individuals who have been co-convenors or invited presenters at one or more SERC workshops (not including either Rendezvous). On average, the 16 leaders self report that what they got from the 2016 Rendezvous almost exactly matched what they gave (get fraction = 50.3). Non-leaders, in contrast, had a get:give ratio of 69:31.

Table 2

<i>Sub-sample</i>	<i>Number</i>	<i>Mean(SD) “Get” fraction</i>
Newcomers (0 prior workshops)	25	72.5 (17.8)
Medium (1-4 prior workshops)	41	66.2 (16.5)
Veterans (5+ prior workshops)	21	56.2 (23.7)
Non-leaders (led 0 workshops)	71	69.1 (17.8)
Leaders (led or presented at 1 or more prior workshops)	16	50.3 (20.0)

As noted under “Methods” above, the details of respondents’ examples of what they had “gotten” and what they had “given” were only recorded briefly and were not coded. However, one trend stood out to the interviewer: Among respondents who offered a fairly lopsided balance in favor of “getting” (70:30 or higher), many of the “giving” examples were what might be termed “micro-contributions” (by analogy with micro-aggressions, and micro-disrespects.) These would include sharing ideas or experiences during a morning workshop or poster session, actively discussing during a hands-on teaching demonstration, chatting with early career faculty about careers, adding comments during a gallery walk, introducing two people to each other who have shared interests, and pointing people towards useful resources. Such micro-contributions happen spontaneously in dyads or small groups, draw on the contributor’s knowledge or experience, and do not require advance preparation. The contributor can perceive the value of the contribution immediately from verbal thanks, enthusiastic tone of voice, body language, and continued discourse on the part of the recipient.

In contrast to a more formal conference where the available roles may be just audience member, presenter, and question-asker, the highly interactive format of the Rendezvous offers a myriad of opportunities for micro-contributions to emerge. Micro-contributions offer an easy opportunity for non-contributors to transition into contributors, and thus may be a mechanism for moving individuals from the periphery towards the center of the community of practice.

Conclusions

This highly exploratory study must be viewed with caution, as we have no basis for comparison with other workshops or meetings. However, our theoretical conjecture that a

convening that aspires to building CoP should be characterized by both giving and getting on the part of the attendees, has been well substantiated, with all but two respondents reporting that experience. Moreover, the vast majority of respondents were satisfied with the balance they had experienced between getting and giving, which is surely a promising sign.

The finding that the majority of the respondents reported getting more than they gave was not necessarily expected and is intriguing. As with any self-report of affect, there are multiple factors that could contribute to this observation, including modesty and inability to gauge how strongly their contribution has impacted other meeting attendees. Regardless of the reason for this feeling, it bodes well for the sustainability of the Rendezvous as an ongoing event, as attendees may tap into this feeling when deciding whether to attend a future Rendezvous or to recommend attendance to colleagues.

A sustainable CoP must move individuals from peripheral participation towards playing a more contributory role in the community's events. We have some evidence that such a trajectory is happening in the geo-ed CoP, in that individuals who were veterans of prior SERC-supported workshops reported that they were giving more (relative to what they were getting) than did people attending their first workshop. Several respondents spontaneously reported that they had contributed more this year than last year, or that they aspire to contribute more next year. For moving individuals from non-contributors to small-contributors, opportunities to make micro-contributions seem to have been important. The fact that few respondents expressed confusion about the meaning of the questions suggests that they could be used in a survey form, without an interviewer at hand to offer clarification, and thus could be used to track changes over time.

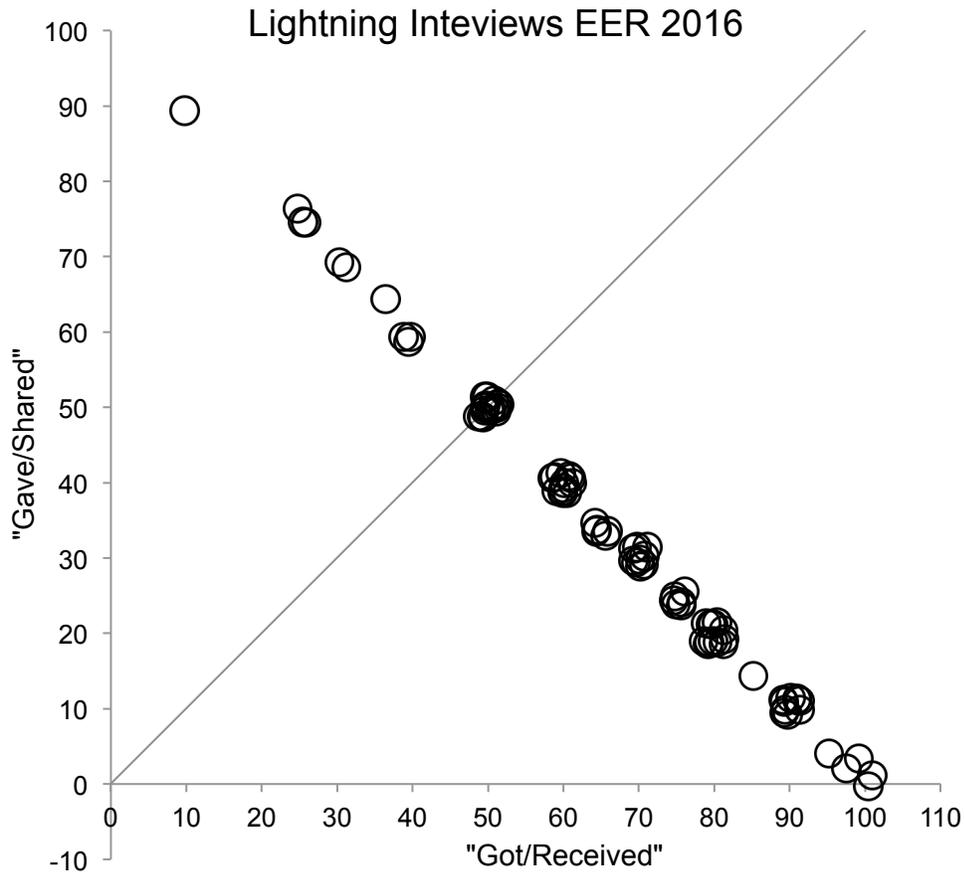


Figure 1: Each symbol represents one of the 87 respondents who was able to provide a quantitative estimate of the balance or ratio between “getting” and “giving” they had experienced at the Rendezvous. Reported get:give ratios range from 10:90 at the upper left to 100:0 at the lower right, with the most frequent response being 50:50. Participants above the 1:1 diagonal line (n=10) felt that they had given more than they had gotten, whereas participants below the line reported getting more than they had given (n=60). Note that a small amount of random jitter was added to the values before plotting so that points would not plot on top of each other.

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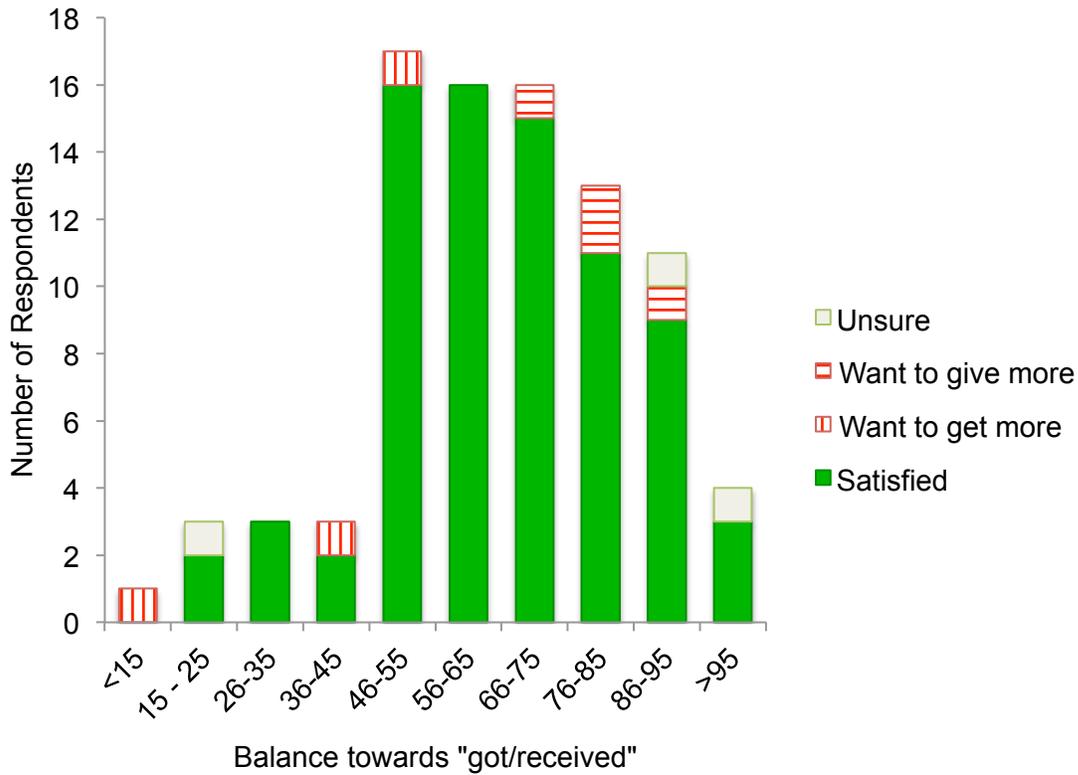


Figure 2: The same data as in figure 1, but displayed as a histogram. As in figure 1, we see here that a strong majority of participants reported “getting” more than “giving.” The breakdown of symbols/colors within each stacked bar represents participants’ responses to the question about their satisfaction with the balance they have experienced between “getting” and “giving.” The vast majority of respondents said they are satisfied with the balance (green). Four respondents, all in the getting-heavy end of the distribution, said that would have preferred more “giving” (red horizontal lines). Three respondents would have preferred more “getting” (red vertical lines), and three did not answer or were unsure (grey).