Rapid Needs Assessment and Response Technique

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Introduction
Iowa Learning Farms (ILF), an Iowa State University Extension and Outreach program, was established in 2004 with the goal being to build a culture of conservation in Iowa by improving water and soil quality through conservation farming practices. ILF staff members, ourselves included, recognize the value of learning through interaction and understand that farmers enjoy sharing knowledge with their peers (Franz, Piercy, Donaldson, Westbrook, & Richard, 2010), a practice that activates a ripple effect of information dissemination as farmers network with others in the future (Comito, Case Haub, & Stevenson, 2017; Dillman, Engle, Long, & Lamiman, 1989). We also are aware that incorporating open-ended questions in a group discussion format allows for social dialogue that reveals deeply held beliefs (Comito, Wolseth, & Morton, 2011). Additionally, we recognize that one-time, structured workshops can influence behavior change, provided that they integrate an active-learning approach (McCann & Gold, 2012) and incorporate appropriate evaluation and assessment methods (McCann, Peterson, & Gold, 2009).

The rapid needs assessment and response technique (RNR) is a method developed by team member Jacqueline Comito to actively engage workshop participants. RNR involves organizing participants in small groups so that they may share their knowledge and opinions related to a series of questions pertinent to the workshop topic. RNR achieves two goals. First, it works as a form of integrated structured networking that encourages participants to focus on the topic and learn more about it by talking to others (Lev, 2003). Using RNR enlivens the conventional structure of workshops and field days (often characterized by unidirectional communication, with facilitators "talking at" participants). Second, RNR helps identify participants' existing knowledge on workshop topics, thus allowing facilitators to tailor information to the audience's indicated needs and questions, as well as
dispel identified misconceptions, during the remainder of the workshop. RNR can be used to ensure active interaction and mutual problem solving among all participants in a workshop setting.

**RNR: The Method**

RNR is a modified, amped up version of the carousel brainstorming technique often used by educators (Pena, 2015). RNR is best used with groups of 25–30 people and requires only a few simple materials and enough space for groups to circulate.

ILF staff and Extension educators used RNR most recently in a series of five cover crop workshops during the winter of 2017. Workshop facilitators identified five questions for participants to focus on during the RNR activity. Large sheets of paper, each with a question written at the top, were taped to walls around the room's perimeter. Small groups of four to 10 people rotated through the stations to discuss the questions and add their thoughts on the sheets of paper. Durations of 5 to 10 min were allotted per question, and facilitators rotated groups earlier if conversations began to lull before the end of the time frame. Each group was assigned a colored marker to add new answers to the questions on each sheet of paper as well as to indicate agreement with previous groups' answers by starring previous groups' comments.

Facilitators were urged to pop in and out of groups to understand the context of discussions but were advised not to inject their own influence into those discussions. Once groups had visited each station, they returned to their original stations to read through the notes provided by all groups. They were asked to circle the top three answers and explain to the group why they picked those answers, a requirement that helped promote participant accountability in the activity. Group members then returned to their seats, and the large group reconvened.

At this point, Extension educators reviewed the common answers to each question, identified misconceptions, dispelled myths, answered questions, and provided further education on the subjects addressed by the questions. Identifying what participants already knew about the workshop topic helped facilitators avoid presenting familiar information, allowing them to better address the group's needs.

Table 1 lists the five questions asked of small groups during the ILF winter workshops and includes the top responses suggested by participants and responses presented by facilitators during the discussion.

<table>
<thead>
<tr>
<th>Question</th>
<th>Farmer and landowner responses</th>
<th>ILF facilitator responses during discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the leading causes of water quality issues in Iowa?</td>
<td>Soil erosion, city runoff</td>
<td>Annual row crop agriculture (short-season annual crops and lack of diversity), unprotected lands, increase in heavy rain events</td>
</tr>
</tbody>
</table>
2. What practices are most effective in improving water quality in your area?
   - No-tillage, cover crops, nutrient management
   - Protection of wetlands, cover crops, crop rotation

3. What practices are most effective in improving soil health and preventing soil erosion in your area?
   - Cover crops, reduced tillage
   - No-tillage, cover crops, crop rotation

4. What are barriers to adoption of edge-of-field practices (bioreactors, wetlands, saturated buffers)?
   - Costs, landlords
   - Costs/lack of enough cost share, lack of capacity to implement the practices, lack of understanding of their importance

5. What are barriers to adoption of in-field practices (cover crops, no-till, strip-till)?
   - Costs/return on investment, mind-set/tradition
   - Mind-set/tradition, return on investment

6. Whose responsibility is it to pay for edge-of-field and in-field conservation practices?
   - Landowner, producer, government
   - Shared responsibility: producer, landowner, and society

*These are the top responses as chosen by the 207 farmers/landowners participating in RNR meetings held in February/March 2017 across Iowa.*

**RNR Benefits**

Guevara, Swett, and Monroe (2013) demonstrated that adult workshop participants rate the value and effectiveness of a workshop much higher when the structure incorporates small-group work and interaction with the workshop topic. This finding emphasizes the idea that experiential learning, which allows for inquiry and active reflection on subject matter by workshop participants, is essential to providing meaningful and positive learning experiences (Enfield, Schmitt-McQuitty, & Smith 2007). The interaction of RNR participants allows for sharing of experiences and wisdom on the subject matter, providing an opportunity for networking and peer teaching that likely will be disseminated to others outside the workshop circle (Dillman et al., 1989; Franz et al., 2010).

RNR also offers practical benefits to facilitators. By beginning our series of ILF workshops with RNR, we were able to identify misconceptions and dispel myths about conservation practices and their effects on farm yields, water and soil quality, and other concerns. Identifying what participants already knew about water quality and soil health helped us avoid giving information that was familiar to the group, thus ensuring that presentations were both practical and useful to participants.

**Conclusion**

RNR is a simple tool Extension professionals can use in workshops to achieve two goals. First, facilitators can use RNR to invigorate the conventional workshop structure by actively engaging participants not only in topical
learning but also in an open exchange of ideas through small-group interactions. Second, facilitators can use RNR to better understand their audience's existing knowledge of the workshop topic and ensure that their subsequent presentations fulfill the unique needs of the workshop audience. This goal is achieved in the second phase of RNR, when results of the small-group discussions are brought together into a large-group conversation between facilitators and participants. At this time, facilitators not only familiarize themselves with participants' existing knowledge on the workshop subject matter but also may dispel any misconceptions that are brought to light, answer questions, and conduct large-group problem solving of common concerns. In these ways, RNR is useful for improving workshop effectiveness for both participants and facilitators.

References


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