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Bob Bertsch North Dakota StateUniversity, robert.bertsch@ndsu.edu

Jill Heemstra University of IllinoisUrbana-Champaign, jillh2@illinois.edu

Doug Golick University of Nebraska-Lincoln, dgolick2@unl.edu

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Preparing to Cocreate: Using Learning Circles to Ready Extension Professionals for Meaningful Stakeholder Engagement

Abstract

Extension professionals are being asked to address complex public issues. Doing so requires cocreative approaches that engage, in a significant way, the people affected by these issues. Successful engagement, however, requires specific skills and a cocreative mind-set. Extension professionals in two states participated in learning circles to improve their engagement skills. Using a survey and interviews, we studied the impact of the learning circle experience on participants. We found that learning circles helped participants practice colearning, build relationships, and change their mind-sets in ways that could move their work toward more cocreative efforts.

Keywords: learning circles, cocreation, stakeholders, professional development, engagement

Bob Bertsch

Web Technology
Specialist
North Dakota State
University
Fargo, North Dakota
robert.bertsch@ndsu.e
du
@ndbob

Jill Heemstra

Educational Design Specialist University of Illinois Urbana-Champaign Urbana, Illinois jillh2@illinois.edu @ill heemstra

Doug Golick

Associate Professor University of Nebraska-Lincoln Lincoln, Nebraska dgolick2@unl.edu

The Need to Adopt a Cocreative Mind-Set

Cooperative Extension is being called on to help address complex public issues (Henning, Buchholz, Steele, & Ramaswamy, 2014). Sometimes called wicked problems or grand challenges, these complex public issues have no clear definition or solution, involve competing values and diverse perspectives among stakeholders, and require changes in behavior and culture across a diverse set of interdependent actors (Carcasson, 2013; Weber & Khademian, 2008). Simple problems can be addressed, in large part, by technical processes, but wicked problems cannot.

Conklin (2005) asserted that because wicked problems are socially complex, addressing them is a fundamentally social process. Many terms have been used for this kind of social process, including *coproduction*, *collective action*, and *collaboration*. In our work preparing Extension professionals to address wicked problems, we use the term *cocreation* because we feel it goes a step beyond collaboration. A cocreation process should engage, in a significant and equitable way, the people directly affected by a wicked problem in the creation of possible solutions (Verschuere, Vanleene, Steen, & Brandsen, 2018).

Several approaches to cocreation have been used to address wicked problems. For example, citizen science is an approach in which researchers involve the public in science at community and global scales. In many citizen science projects, researchers have the goal of collaborating to work on a wicked problem, such as climate change (Hurlbert & Liang, 2012), infectious diseases (Curtis-Robles, Wozniak, Auckland, Hamer, & Hamer, 2015), and food insecurity (Ryan et al., 2018). Another approach, *coinnovation*, involves interactions across multiple stakeholders, viewpoints, perceptions, practices, groups, and systems (Vereijssen et al., 2018). It has been used, for example, to increase adoption of desirable practices in New Zealand agriculture by networking "farmers, input industries, processors, traders, and researchers" (Botha, Klerkx, Small, & Turner, 2014, para. 1). Botha et al. (2014) estimated that a coinnovation approach compared to a technology transfer approach resulted in a net benefit of NZ\$12.2 million annually at peak adoption levels. People have used the deliberative engagement approach to address wicked problems by developing mutual understanding, sharing diverse perspectives, and providing support for adaptation, negotiation, and creativity (Carcasson, 2013).

While cocreative approaches such as citizen science, coinnovation, and deliberative engagement have been a part of Extension's work throughout its history (French & Morse, 2015), they present a significant challenge to the traditional expert model and the dominant mind-set of many Extension professionals (Shaffer, 2017). Changing the dominant mind-set of Extension professionals requires more than training in facilitation or engagement. Botha et al. (2014) concluded that learning by doing was essential for researchers without experience in participatory research to adapt to the New Zealand coinnovation model. Additionally, Reed (2008) wrote, "Stakeholder participation needs to be underpinned by a philosophy that emphasizes empowerment, equity, trust, and learning" (abstract).

We believe that for Extension professionals to effectively participate in cocreative approaches essential to wicked problem engagement, they need to adopt a cocreative mind-set. A person with a cocreative mind-set sees issues from multiple, diverse perspectives and recognizes the importance of relationships, transparency, and impact (Cizek et al., 2019). People with a cocreative mind-set strive to approach their work with generosity and humility, seeking to share power and credit and to engage as many people as possible in an equitable way (Ramaswamy & Gouillart, 2010). They see building relationships as the foundation to any cocreation process (Jacobsson & Roth, 2014). They value growth, believing that they can grow and change and that others can grow and change as well. They see cocreation not as a set of skills to be acquired but as a way of being that can be practiced throughout life, and they practice reflection and self-discovery to cultivate that way of being (Ind, Igelsias, & Schultz, 2013). Finally, they are persistent in addressing complex issues using cocreation and resilient in the face of the challenges of the cocreative approach (van der Hel, 2016).

Meeting a Challenge

In 2016, dean Chuck Hibberd challenged Nebraska Extension professionals to transform their work from "outreach to engagement." Due to our past experience with learning circles and new ways of working, we were invited to join a team tasked with addressing that challenge. As part of that work, we organized and facilitated learning circles focused on helping Extension professionals develop a cocreative mind-set. Learning circles are small supportive groups of learners. The term *learning circles* has been used to describe many different group learning experiences. Our vision of learning circles emphasizes personal and cultural transformation that occurs, according to Collay, Dunlap, Enloe, and Gagnon (1998), through "building"

community with other learners," supporting other learners, "documenting reflection," and changing organizational cultures through action (p. 8).

Learning circles create conditions that encourage colearning, or the collaborative construction of knowledge, and transformative learning, or learning resulting in adoption of a new frame of reference rather than only a technique, skill, or practice (Franz, 2003). In learning circles, both of these elements are negotiated through a critical third element, relationships.

The Learning Circle Process

In 2016, we facilitated learning circles for select Extension personnel. In spring 2017, we offered another set of learning circles. Another Extension organization had expressed interest in our work, so we invited Extension professionals from both organizations to participate. Bringing together participants from two state Extension systems increased the diversity of perspectives and seemed to stimulate more discussion. In fall 2017, participants from the 2016 learning circles were selected to facilitate a third set of learning circles with other professionals from the original Extension organization.

Learning circle meetings were held via web conferencing software. Most circles convened weekly for about an hour and met eight to 12 times over a 3-month period. The average frequency of attendance by participants was 80% of scheduled meetings.

Our learning circle process was based on John Stepper's Working Out Loud (WOL) Circles (Stepper, n.d.). The purpose of using WOL Circles is to make work cultures more collaborative and innovative through a series of activities that lead to a more engaged way of working as facilitators guide participants in building goal-oriented networks. Stepper developed 12 WOL Circle guides that can be used to cultivate practices indicative of a cocreative mind-set, including generosity, relationship building, self-discovery, and attention to growth. Each guide contains two to four activities that the facilitator helps the learning circle participants work through, along with prompts for group discussion.

We used the WOL Circle guides as a starting point but adapted some of the activities to make them more relevant to the day-to-day work of Extension professionals and incorporated additional activities we thought would be effective (Table 1). These activities served as a starting point for group discussion and practice outside the learning circles.

Table 1.Sample Activities and Corresponding Learning Objectives From Learning Circles

Sample activity	Objective
What Lights You Up? The learner considers the	The learner considers and shares what he or she is
questions "What lights you up?" and "What are	passionate about to connect with other learners and inform
you an advocate for?"	his or her personal goal.
Set Your Goal. The learner sets a personal goal for	The learner sets a goal so that he or she can approach the
the learning circle experience.	learning circle with a purpose. Sharing the goal gives other
	learners the opportunity to provide support.
Relationship List. The learner creates a list of	The learner begins to see learning and problem solving as a

people who might be able to help with the collective, interdependent endeavor. previously set goal and then connects with those people. Make a Contribution. The learner gives a small The learner experiences how small gifts, given in the spirit gift, such as attention (e.g., liking or sharing a of generosity, can build relationships. social media post) or gratitude (e.g., sending a genuine "thank you" email), to someone on his or her relationship list. So Much to Offer. The learner takes 3 min to try The learner engages in self-discovery, becoming more familiar with all aspects of himself or herself and write 50 facts about himself or herself. discovering bids for connection with others. By sharing a few facts in the circle, learners practice making themselves visible and vulnerable to others. Letter from My Future Self. The learner imagines a The learner practices a growth mind-set by imagining a time in the future when he or she has future in which he or she has changed a practice. accomplished the previously set goal and then writes a letter to himself or herself about what that success looks and feels like.

Methodology

To determine how the learning circles experience affected participants' mind-sets and Extension work practices, we studied participants' responses to the experience through use of a survey and interviews. We disseminated the survey to and conducted interviews with Extension professionals who participated in four separate learning circle groups between September 2017 and May 2018.

We used a web-based survey to gather participants' (a) opinions of the learning circle experience and (b) perceptions of how it affected their professional growth and work practices. The 13-item survey comprised a combination of open- and close-ended questions (Table 2). We checked survey questions for face validity. Of 27 participating Extension professionals, 25 completed the survey.

Table 2. Survey Questions for Evaluation of Learning Circle Impacts

Survey question	Response type
What is your gender?	Single response
Which state does your home institution reside in?	Single response
The learning circle experience met my expectations.	Scale of strongly agree to
	strongly disagree
The learning circle was worth my time.	Scale of strongly agree to
	strongly disagree
I made a closer connection to someone in my learning circle.	Scale of strongly agree to
	strongly disagree

Listening to others during the learning circle helped me grow. Scale of strongly agree to strongly disagree Have you participated in anything like a learning circle before? Yes-no Numeric How many minutes a week (average) did you work to prepare for the learning circle? How many minutes a week (average) did you spend reflecting on your learning Numeric circle experience? What were the barriers to your spending time participating in learning circle Multiple response activities? (Choose all that apply.) Did listening to others in the learning circle help you grow? Yes-no In 3-5 sentences, explain how the learning circle experience has helped you Short answer grow personally and/or professionally. Please provide any other comments you have about your learning circle Short answer experience.

We conducted phone interviews with three survey respondents who were willing to elaborate on their learning circle experiences. We designed structured interview questions that allowed for open-ended responses and facilitated our gathering of constructive feedback on the structure of learning circles and their benefits in a nonjudgmental setting (Charmaz, 2014). We recorded interviews and then transcribed and analyzed their content to find themes, which we derived using thematic coding around the phenomenon of the impact of learning circles (Creswell & Creswell, 2017). Commonalities among interviewee responses were grouped into response themes. Interview questions focused on gathering participants' descriptions of their experience in the learning circles, gaining insight regarding their satisfaction of the experience, and identifying perceived impacts of the learning circles on participants' professional growth. The questions were as follows:

- Tell me a little about your learning circle.
- Can you describe how a learning circle works?
- Can you describe your experience in working in the learning circle?
- Do you think you will share this experience with others? If so, how?
- How do you think participating in the learning circle experience will affect your work?
- Can you provide an example of how you have applied something you gained from the learning circle experience in your work?

Following interviews, we employed a comparison of survey responses and interview responses to confirm and corroborate findings and increase the internal validity of the study (Merriam, 2009). We provided rich descriptions, calling directly on research participants' words and providing details when describing codes, categories, and memos. To facilitate data analysis, we recorded data in Microsoft Office Excel, and our data

analysis consisted of cycles of blind coding, memoing, and two resolution sessions. All recruitment, informed consent, resulting data collection, and analysis activities received institutional review board approval (Approval #20170517184 EX).

Results

Survey Response Data

Of the 25 survey respondents, only two had participated in professional development activities such as learning circles before. All 25 respondents reported ($strongly\ agree = 11$, agree = 14) that the learning circle experience met their expectations.

Learning circle participants reported spending an average of 23 min a week preparing for structured activities outside the weekly meeting time. In addition, respondents reported spending an average of 27 min a week reflecting on each week's learning circle activities and conversations. All survey respondents agreed ($strongly\ agree=11$, agree=14) with the statement that the learning circle activities were worth their time.

Regarding the value of the learning circles, one statement respondents were asked to react to was this: "I made a closer connection to someone in my learning circle." Seven strongly agreed, eight agreed, six were neutral, one disagreed, and three did not provide an answer for this item. Nearly all respondents (f = 24) agreed that listening to others in their learning circle helped them grow professionally. When asked to elaborate via written response, many respondents wrote that it helped them better share their Extension successes and failures. One responded, "It pushed me to be proud of my goals/success and to share work with others, be visible, and make my work visible." Another said, "It was beneficial to see how others view their work in Extension, share challenges, successes, and tools/tricks and best practices. It allowed me a safe space to share and receive feedback." A few others also commented on the benefits of hearing other Extension professionals' points of view and gaining closer connections to others through learning circles. One commented, "It was great to hear different perspectives on engaging stakeholders in Extension programming."

The vast majority of participants saw value in participating in the learning circle experience. In their explanations of how the learning circle experience had helped them grow, respondents mentioned connecting with others in Extension, nurturing relationships outside Extension, working out loud/sharing, setting goals, learning how Extension works, gaining perspective and ideas about new ways of doing things, and using technology (e.g., social media, collaboration tools). Those who found value in the learning circles reported that they deliberately invested time in preparing for and completing learning circle activities and reflecting on those activities.

When asked about barriers to spending time participating in learning circle activities, respondents cited lack of time, unforeseen scheduling conflicts, and individual commitment to participation. Areas of improvement for the learning circles suggested by respondents included shortening the experience by 2 or 3 weeks, having more structured and active-learning curricular elements, and implementing periodic follow-up sessions to keep people engaged in WOL practices.

Themes in Survey and Interview Responses

Three main themes emerged from the survey responses and participant interviews: colearning, transformation, and relationships.

We use *colearning* as a general term to describe instances in which participants learned from each other, not just from the content or facilitator. All three interviewees mentioned colearning as a beneficial outcome of the learning circle. For example, one said this:

"I learned a lot because when you start talking to people from different disciplines that are not in your norm, you start to hear different ideas. You know, they might have a totally different perspective on something that I would have never thought about just because they have a different background."

The second theme that emerged from the interviews was transformation. We use the term *transformation* to describe changes in a participant's practices, habits, or mind-set. There was evidence of transformation in the open-ended survey responses and the interview responses. For example, one survey respondent wrote this:

"The WOL learning circle experience opened up a new way of thinking for me. Here's a few of the ways I grew both personally and professionally: • Being pushed to share my work. • Being unapologetic about having an opinion and showing my authentic self at work. • Discovering new voices and authors whose writing and sharing has been a source of inspiration."

Another wrote this:

"I valued that time that I put in [into the learning circle] because I did gain some things from it. I gained new ideas and I also worked through these ideas. I now say, 'How do I make those connections within my accountability region and start some of those steps?'"

Participants changed not only how they work but also how they think about their work. One interviewee said this:

"It really made me think [that] if I'm not willing to put this out there publicly, clearly this is not one of my passions, you know. This isn't the right goal. I'm not choosing the right thing. So I really, like, sat back and reevaluated, like, what, what should I be doing?"

The final theme that emerged was *relationships*. All of the interviewees highlighted the role relationships played in their experience. One interviewee said this:

"You know, the people that were in my circle came from all different parts, well two different states in all different disciplines, and it was amazing the connection by the end that I felt with them."

Another said this:

"You kind of develop that sense of community because you're all there sharing every day or every week and . . . I do think committing to your timing is important when you do it."

The interviewees discussed how their involvement in the learning circle experience helped them better interact with colleagues and clientele. One interviewee said this:

"I'm going to LinkedIn and finding a contact that you could connect with, but instead of just sending, like, a generic request, like so-and-so wants to connect on LinkedIn, it was making a personalized message, which makes so much sense and, you know, hey, I also have this interest or I work in this project area. . . . I've noticed that since I've started doing that, I will get a, I don't usually get just, like, oh, a 'thanks,' you know. They're actually like, oh, you know, 'this looks super interesting.' There'll actually be a conversation around it where you can tell they've clicked the LinkedIn link and opened it or they've opened the article and actually read through it. It's not just a 'oh thanks.'"

Discussion and Conclusions

The charge for Extension professionals to engage in complex challenges (Henning et al., 2014; Bertsch, 2016) requires that Extension professionals work in a cocreative way. We found that learning circles provide a supportive environment in which Extension professionals can develop and expand the mind-set and habits that lead to cocreation with peers, partners, and a diverse set of stakeholders. Although the learning circle interactions were varied (i.e., responsive to participants' individual needs and group dynamics), the three common themes of colearning, transformation, and relationships emerged from our analysis.

These themes led to more cocreative mind-sets among participants. The colearning that occurred in the circles led to transformation, helping participants practice seeing things from different perspectives, exploring differences in those perspectives, and constructing meaning together. It helped them approach cocreation with the same generosity and humility that will be required when engaging stakeholders in the cocreative process. Participants reported that the techniques used in the learning circles led to a high level of trust within the circle and improved their ability to reach out to new people who could help them reach their goals. This may be the most significant finding as relationships are essential to the cocreative process.

Learning circles have the potential to change participants' habits and mind-sets in a way that could move their work toward cocreative efforts. The time spent in the circles on reflection and self-discovery led some participants to reevaluate and reconnect with the purpose of their work. A focus on the purpose of the work, rather than the work itself, as well as the ability to authentically share that purpose, is important in the cocreative process. While we agree with Botha et al. (2014) that experience in participatory approaches is important, learning circles provide a low-stakes environment in which Extension professionals can practice the skills and habits needed for cocreation.

A possible limitation of our study is the relatively small number of interviewees. Interviewees were selected for availability and willingness to participate in interviews. Although three is a seemingly small number, responses were very similar across the three participants and functionally achieved saturation (similarity) according to guidelines for qualitative methodologies (Saunders et al., 2018).

We believe that one-time training in activities such as group facilitation or social media program development is not enough to prepare Extension professionals to effectively engage in cocreative approaches. Whether through learning circles or another process, it is vitally important that Extension professionals are encouraged and given permission to invest time and effort into processes that develop skills, habits, and mind-sets for cocreative work. This investment leverages the disciplinary expertise already held by Extension professionals with the knowledge and expertise of stakeholders and partners, resulting in impactful science-based solutions. We believe that the unique capabilities of a cocreative

Extension system will ensure that we remain a relevant and desirable partner for addressing the complex challenges faced by our clientele.

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References

Bertsch, B. (producer). (2016, September 9). Chuck Hibberd, episode 92. *Working Differently in Extension* [Audio podcast]. Retrieved from https://soundcloud.com/workingdifferently/chuck-hibberd-episode-92.

Botha, N., Klerkx, L., Small, B., & Turner, J. A. (2014). Lessons on transdisciplinary research in a co-innovation programme in the New Zealand agricultural sector. *Outlook on Agriculture*, *43*(3), 219–223. https://doi.org/10.5367/oa.2014.0175

Carcasson, M. (2013). Tackling wicked problems through deliberative engagement. *National Civic Review*, 105(1), 44–47. https://doi.org/10.1002/ncr.21258

Charmaz, K. (2014). Constructing grounded theory (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Cizek, K., Uricchio, W., Anderson, J., Agui Carter, M., Allen Harris, T., Holmes, M., & Stephenson, M. (2019). Part 1: 'We are here': Starting points in co-creation. In *Collective wisdom* (1st ed.). Retrieved from https://wip.mitpress.mit.edu/pub/collective-wisdom-part-1

Collay, M., Dunlap, D., Enloe, W., & Gagnon, G. W., Jr. (1998). *Learning circles: Creating conditions for professional development.* Thousand Oaks, CA: Corwin Press, Inc.

Conklin, J. (2005) *Dialogue mapping: Building shared understanding of wicked problems*. Hoboken, NJ: John Wiley & Sons.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: SAGE Publications, Inc.

Curtis-Robles, R., Wozniak, E. J., Auckland, L. D., Hamer, G. L., & Hamer, S. A. (2015). Combining public health education and disease ecology research: Using citizen science to assess Chagas disease entomological risk in Texas. *PLoS Neglected Tropical Diseases*, *9*(12), e0004235.

Franz, N. (2003). Transformative learning in Extension staff partnerships: Facilitating personal, joint, and organizational change. *Journal of Extension*, *41*(2), Article 2FEA1. Available at: https://www.joe.org/joe/2003april/a1.php

French, C., & Morse, G. (2015). Extension stakeholder engagement: Adapting to the twenty-first century [Special issue]. *Journal of Human Sciences and Extension*, *3*(2). Retrieved from https://scholars.unh.edu/nren_facpub/127

Henning, J., Buchholz, D., Steele, D., & Ramaswamy, S. (2014). Milestones and the future of Cooperative

Extension. *Journal of Extension*, *52*(6), Article v52-6comm1. Available at: https://www.joe.org/joe/2014december/comm1.php

Hurlbert, A. H., & Liang, Z. (2012). Spatiotemporal variation in avian migration phenology: Citizen science reveals effects of climate change. *PLoS One*, *7*(2), e31662.

Ind, N., Iglesias, O., & Schultz, M. (2013). Building brands together: Emergence and outcomes of cocreation. *California Management Review*, *55*(3), 5–26.

Jacobsson, M., & Roth, P. (2014). Towards a shift in mindset: Partnering projects as engagement platforms. *Construction Management and Economics*, *32*(5), 419–432.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: John Wiley & Sons.

Nebraska Extension. (n.d.). Strategic initiatives. Retrieved from https://extension.unl.edu/strategic-initiatives/

Ramaswamy, V., & Gouillart, F. (2010). Building the co-creative enterprise. *Harvard Business Review*, 88(10), 100–109.

Reed, M. S. (2008). Stakeholder participation for environmental management: A literature review. *Biological Conservation*, 141(10), 2417–2431. https://doi.org/10.1016/j.biocon.2008.07.014

Ryan, S. F., Adamson, N. L., Aktipis, A., Andersen, L. K., Austin, R., Barnes, L., . . . Cooper, C. B. (2018). The role of citizen science in addressing grand challenges in food and agriculture research. *Proceedings of the Royal Society B*, *285*(1891), 20181977.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., . . . Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, *52*(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

Shaffer, T. J. (2017). Supporting the "Archstone of Democracy": Cooperative Extension's experiment with deliberative group discussion. *Journal of Extension*, *55*(5), Article v55-5a1. Available at: https://www.joe.org/joe/2017october/a1.php

Stepper, J. (n.d.). Working out loud circles. Retrieved from http://workingoutloud.com/en/circle-guides/

van der Hel, S. (2016). New science for global sustainability? The institutionalisation of knowledge coproduction in Future Earth. *Environmental Science & Policy*, *61*, 165–175.

Vereijssen, J., Srinivasan, M. S., Dirks, S., Fielke, S., Jongmans, C., Agnew, N., . . . Brazendale, R. (2017). Addressing complex challenges using a co-innovation approach: Lessons from five case studies in the New Zealand primary sector. *Outlook on Agriculture*, 46(2), 108–116.

Verschuere, B., Vanleene, D., Steen, T., & Brandsen, T. (2018). *Co-production and co-creation*. New York, NY: Taylor & Francis

Weber, E. P., & Khademian, A. M. (2008). Wicked problems, knowledge challenges, and collaborative capacity builders in network settings. *Public Administration Review*, 68(2), 334–349.

https://doi.org/10.1111/j.1540-6210.2007.00866.x

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