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## A Call to Embrace Program Innovation

### Abstract

To remain vital, it is critical for Extension to embrace the innovation at the core of our birth and success. In this article, we define Extension program innovation as driven by the productive tensions among three core program planning practices: design, construction, and evaluation. Through daily, interactive tinkering in these three practices, staff strive toward stronger program impact and creatively respond to opportunities or challenges. We discuss how an innovation approach to program planning is well suited to address three contemporary Extension program development issues. We also discuss implications of innovation research to improve Extension program planning.

**Nathan J. Meyer**  
Program Leader and  
Associate Extension  
Professor  
Center for Food,  
Agricultural and  
Natural Resource  
Sciences  
[meyer179@umn.edu](mailto:meyer179@umn.edu)

**Sherry P. Boyce**  
Extension Educator  
and Extension  
Professor  
Center for Youth  
Development  
[sboyce@umn.edu](mailto:sboyce@umn.edu)

**Rebecca L. Meyer**  
Extension Educator  
and Associate  
Extension Professor  
Center for Youth  
Development  
[meyer178@umn.edu](mailto:meyer178@umn.edu)

University of  
Minnesota Extension  
Cloquet, Minnesota

## Introduction

During the centennial celebration of the Smith-Lever Act, the words published by C.M. Ferguson (1964) shortly after Extension's Golden Anniversary still ring true:

Extension's history has been one of innovation—in methods, in subject matter, in audience. Its birth was an innovation. Its early growth was nourished by innovation. Its success was measured by the innovations it succeeded in getting adopted. What a tragedy it would be if...this great spirit of adventure and venture was to be lost and it was to become the victim of paralysis of the status quo!

The innovative impact of Extension programming is arguably a cornerstone of our sustainability (McGrath, Conway, & Johnson, 2007). In comparing Extension to the Pony Express, however, West,

Drake and Londo (2009) contended that our institutions no longer occupy a unique niche and business model. They suggested that "dramatic transformations must occur to ensure Extension's future." Franz and Cox (2012) more recently called for widespread efforts toward disruptive innovation: "every Extension system, team, and worker should explore, implement, and evaluate disruptive organizational innovations to enhance relevance and sustainability." As we embark on a new century of Smith-Lever, it is critical for Extension to embrace again the innovation that was at the core of our birth and success.

## Definition for Program Innovation

Argabright, McGuire, and King (2012) defined innovation concisely as "applied creativity"—the act of implementing, transferring, and using new ideas. Via a comprehensive literature review, Baregheh, Rowley, and Sambrook (2009) developed a multidisciplinary definition for innovation: "Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, services, or processes, in order to advance, compete and differentiate themselves successfully in their marketplace." They furthermore pointed out that innovation encompasses six distinct processes, including organizational context, type of product, idea, experience being improved, and specific aim for the improvement.

We subsequently define Extension program innovation as the ongoing process of challenging and adapting to generate new ideas, processes, or products to strengthen impact performance and contend that attention to this process can substantially improve Extension planning for impact.

Extension program innovation is particularly compelling insofar as it describes how Extension staff of many different positions can practice intelligent tinkering (Leopold, 1993) to strengthen programming. Condensing Caffarella's (2002) interactive model of program planning and the LUMA Institute taxonomy of innovation (A Taxonomy, 2014), we suggest that the process of program innovation can be depicted as driven by the productive tensions among three core program planning practices: design, construction, and evaluation (Table 1). Following Baregheh, Rowley, and Sambrook (2009), we believe that there is interaction among these three practices, challenging and adapting over and over again, and always strongest when all three practices are present. But the practices are not sequential. New ideas for innovation can emerge from any practice at any time (Figure 1). Extension staff strive toward stronger program impact through their daily, interactive work to understand their participants and program mechanics, and creatively respond to opportunities or challenges. Strategies like LUMA innovation mapping (A Taxonomy, 2014) or Situated Inventive Thinking (Boyd & Goldenberg, 2013) can assist staff in creating effective pathways among the core planning practices.

**Table 1.**

Description of Three Core Program Planning Practices That Drive the Process of Extension Program Innovation (A Taxonomy, 2014; Caffarella, 2002)

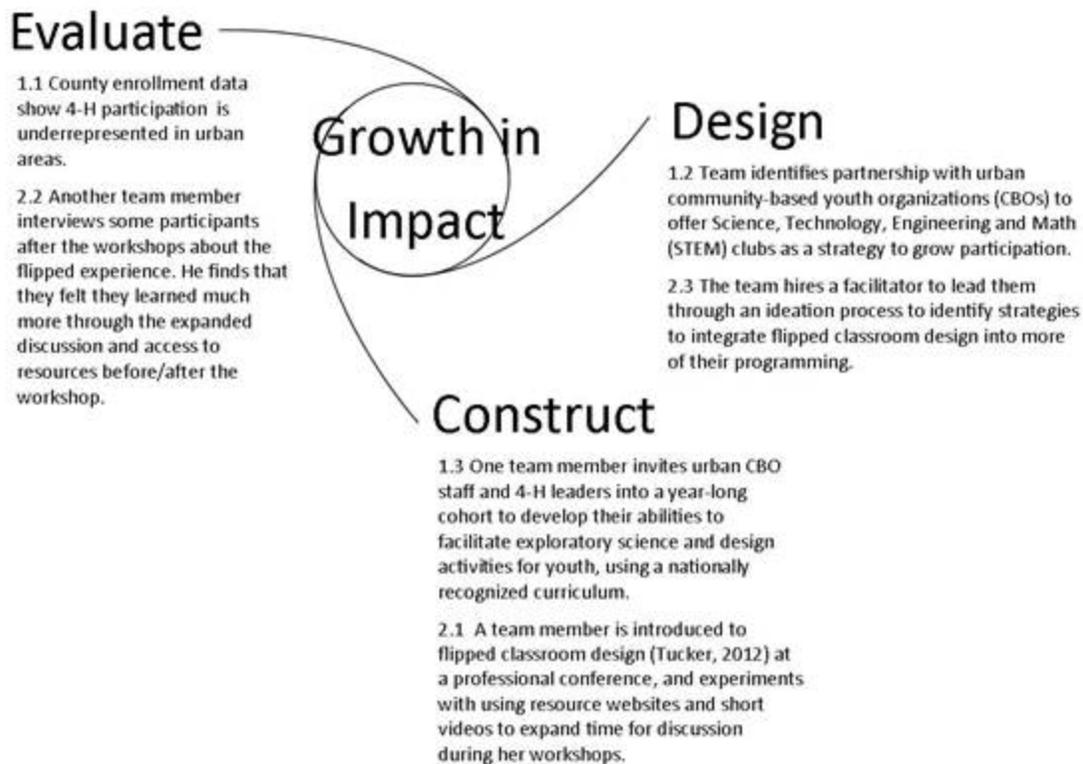
<p><b>Design</b> is the systematic way of <b>conceiving</b> programming, including problem formulation, ideation, prototyping, testing,</p>	<p><b>Construction</b> is the systematic way of <b>creating</b> programming to accomplish intended</p>	<p><b>Evaluation</b> is the systematic way of <b>informing</b> questions about</p>
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<p>and creating program theory and resources.</p>	<p>purposes, including cultivation of community and stakeholder support, procuring necessary human, material and financial resources.</p>	<p>program development and improvement, or whether program results meet intended goals.</p>
<p><b>Purpose in Generating Innovation:</b></p>		
<p><b>Challenge current ways of thinking about and doing programming.</b></p> <ul style="list-style-type: none"> <li>Proposes intentional strategies to achieve impacts.</li> <li>Defines program theory/concepts/components to guide construction.</li> <li>Creates objectives and goals for evaluation.</li> </ul>	<p><b>Challenge the workability of design, and efficacy of evaluation.</b></p> <ul style="list-style-type: none"> <li>Develops strategies to enact design.</li> <li>Cultivates resources and staffing.</li> <li>Guides and adjusts expected standards.</li> </ul>	<p><b>Challenge the strategies and alignment with expected outcomes and impacts.</b></p> <ul style="list-style-type: none"> <li>Provides information to guide design and construction.</li> <li>Provides information on cost/benefit, return on investment, fidelity and efficiency for construction.</li> </ul>
<p><b>Staff Role in Process:</b></p>		
<p>The <b>Architect</b> who envisions and develops blueprints to guide construction and renovation.</p>	<p>The <b>Contractor</b> who directs and works alongside others to erect the structure from blueprints.</p>	<p>The <b>Inspector</b> who reviews blueprints and structures to ensure fit with client and community intentions, policy and safety.</p>
<p><b>Program Example:</b> The following example is drawn from the University of Minnesota Extension <i>Driven to Discover: Enabling Authentic Inquiry through Citizen Science</i>. It illustrates one project within a much larger program. See Meyer et al (2014) for a more detailed description of the larger project.</p>		
<p>Development of a 1 page</p>	<p>Leading work with web</p>	<p>Work with a</p>

<p>description and illustration of the plans for an interactive website to support youth and volunteer adult leaders in conducting authentic science inquiry projects, grounded in their involvement in Citizen Science.</p>	<p>design specialists and communications staff to select which design elements could actually be completed within the \$50K budget, and create the site within a new Extension template.</p>	<p>graduate student to conduct a front-end analysis of potential volunteer adult leader preferences for the interactive site to guide prioritization of site elements to build within budget.</p>
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**Figure 1.**

Illustration of the Interaction of Three Core Program Planning Practices in Driving Program Innovation



## Need for Program Innovation

We are working in an exciting era of creativity and innovation for social change (Brown, 2009; Johnson, 2010). Stakeholders increasingly call on Extension to deliver the practical education and research to tackle Grand Challenges in environment, community, food, and agriculture. Our efforts to address these challenges, however, encompass complicated development uncertainties because they often target wicked problems like global warming, for which effective solutions are particularly complex (Buchanan, 1992; Rittel & Webber, 1973). We must also create programs within quickly changing contexts of new education technologies, merging disciplines, and shifting population

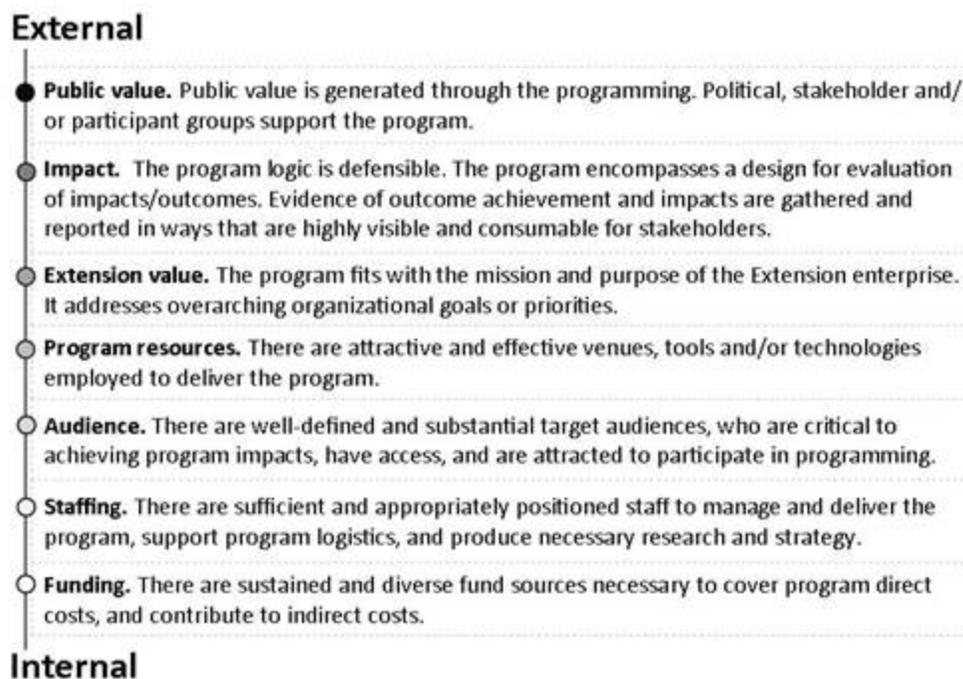
demographics for participants, who encompass an indefinite variety of backgrounds, aptitudes, and motivations (Falk & Storksdieck, 2005; Storksdieck, Ellenbogen, & Heimlich, 2005).

Program development models often employed in Extension are risky in such uncertain conditions because they tend to be linear in implementation and thus 1) underemphasize attention toward changing conditions and 2) overemphasize efforts to mature programming. Sequential implementation assumes long-term stability in problem conditions, participant preferences, and program performance (Garud, Jain, & Tuertscher, 2008). In other words, we risk conducting an assessment of initial conditions to ground program logic and then working toward maturing and scaling programming along the pre-planned trajectory while the conditions change around us. Garud, Jain, and Tuertscher (2008) described this as aiming for completeness, and cautioned that, "an emphasis on completeness is likely to result in the creation of designs that foreclose future options."

Program innovation is a framework that addresses this risk. Rather than focus on maturing the program along a pre-determined trajectory, it encompasses our intentional ways of tinkering to strengthen program impacts (Figure 2). The measure of success for innovation is clear—new ideas, processes, or products that are novel and useful to strengthen performance. We do not assume stability in conditions. In fact, it is our attention to changing conditions and uncertainty that sparks new ideas, processes, and products. Garud, Jain, and Tuertscher (2008) would subsequently characterize program innovation as adaptive, acknowledging incompleteness. The innovation frame assumes that we can always practice to strengthen our impact. The program is never perfect.

**Figure 2.**

Continuum of Internal and External Program Factors for Innovation



## Implications of Research for Program Innovation

Innovation is a well-researched field from individual neurological to organizational and social mechanisms, cross-cutting public and private enterprises. If we embark collectively toward a program innovation approach to 21<sup>st</sup> century Extension program development, we can learn much from these scholars:

## **Client Needs Compel Innovation**

In the words of Berger (2010), the design and evaluation processes that drive program innovation focus on "deep investigation into people's lives and needs—with emphasis on deep." Empathetic approaches to research (Berger, 2010; Brown, 2009) like phenomenology, ethnography, and grounded theory are particularly well suited to compel innovation. For example, Skuza (2005), Meyer (2005), and Meyer and Munson (2005) are published studies that illustrate how phenomenological interviews and ethnography can illuminate both the essential experience of issues that we aim to address in programming and the experience of our program activities.

## **Creativity Drives Innovation**

Adler (2011) claims: "We are all humbled by the enormity of the crises undermining twenty-first-century society. We are equally aware that the dehydrated language and approaches of the twentieth century are completely incapable of addressing such challenges effectively." The importance of program logic and change theory cannot be discounted for success in Extension programming. But program innovation demands the creativity to reframe problems and invent new, novel ways to address them. Research unfortunately suggests that creativity is in decline (Bronson & Merryman, 2010). However, innovative training like the University of Minnesota Creative Problem Solving MOOC exemplifies ways we can teach, cultivate, and improve creativity within Extension.

## **Innovation Aims for Growth.**

Bruce Mau (1999) wrote,

Forget about good. Good is a known quantity. Good is what we all agree on. Growth is not necessarily good. Growth is an exploration of unlit recesses that may or may not yield to our research. As long as you stick to good you'll never have real growth.

To grow stronger programming, we need to encourage exploration, calculated risk-taking. We also need to own "failures" as productive parts of Extension innovation. Scholars have highlighted a variety of strategies, such as DARPA-style innovation teams that may hold promise for Extension (Dugan & Gabriel, 2013; Garud, Jain, & Tuertscher, 2008).

## **Administration, Teams and Individuals Must Conspire to Create Environments That Catalyze Innovation**

Consensus suggests that innovation begins as an individual cognitive process, sparking the new idea

(Drach-Zahvy & Somech, 2001; Somech & Drach-Zahvy, 2013; Johnson, 2010). However, the organizational environment can amplify or reduce potential for innovation (Argabright, McGuire, & King, 2012; Fayard & Weeks, 2011). Team heterogeneity, culture, and dialogic processes also substantially impact potential for sharing and implementation of innovative ideas (Drach-Zahvy & Somech, 2001; Somech & Drach-Zahvy, 2013). The responsibility to encourage innovation spans individual team members to the highest levels of Extension organizations.

## Conclusions

Innovation is a core part of the Extension centennial heritage. Through program innovation, we can catalyze the transformation necessary to thrive at our impact mission for years to come. Three interactive core practices—designing, constructing, and evaluating—provide us an instrumental framework to guide the day-to-day work of strengthening program impacts. Innovation research, moreover, provides us direction to collectively explore improvements to our own personal/organizational structures and practices. In the words of Bruce Mau (1999)

Process is more important than outcome. When the outcome drives the process we will only ever go to where we've already been. If process drives outcome we may not know where we're going, but we will know we want to be there.

We sincerely hope we all want to embrace a program innovation process for at least another century.

## References

- A taxonomy of innovation. (2014). *Harvard Business Review*, 92(1/2), 30-31.
- Adler, N. J. (2011). Leading beautifully: The creative economy and beyond. *Journal of Management Inquiry*, 20(3), 208-221.
- Argabright, K., McGuire, J., & King, J. (2012). Extension through a new lens: Creativity and innovation now and for the future. *Journal of Extension* [On-line], 50(2). Article 2COM2. Available at: <http://www.joe.org/joe/2012april/comm2.php>
- Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. *Management Decision*, 47(8), 1323-1339.
- Berger, W. (2010). *CAD monkeys, dinosaur babies, and t-shaped people: Inside the world of design thinking and how it can spark creativity and innovation*. New York: Penguin Books.
- Boyd, D., & Goldenberg, J. (2013). *Inside the box: A proven system of creativity for breakthrough results*. New York: Simon & Schuster.
- Brown, T. (2009). *Change by design: How design thinking transforms organizations and inspires innovation*. New York: HarperCollins Publishers, Inc.
- Bronson, P., & Merryman, A. (2010). The creativity crisis. *Newsweek*. Retrieved from: <http://www.newsweek.com/creativity-crisis-74665>.

- Buchanan, R. (1992). Wicked problems in design thinking. *Design Issues*, 8(2), 5-21.
- Caffarella, R. S. (2002). *Planning programs for adults: A comprehensive guide* (2nd ed.). San Francisco: Jossey-Bass.
- Dugan, R. E., & Gabriel, K. J. (2013). "Special forces" innovation: How DARPA attacks problems. *Harvard Business Review*, 91(10), 74-84.
- Falk, J., & Storksdieck, M. (2005). Learning to understand visitor learning from a science center exhibition. *Science Education*, 89(5), 744-778.
- Fayard, A., & Weeks, J. (2011). Who moved my cube? Creating workspaces that actually foster collaboration. *Harvard Business Review*, 89(7/8), 102-110.
- Ferguson, C. M. (1964). Innovation in Extension. *Journal of Extension* [On-line], 3(4), 152-154. Available at: <http://www.joe.org/joe/1964fall/1964-3-a4.pdf>
- Franz, N. K., & Cox, R. A. (2012). Extension's future: Time for disruptive innovation. *Journal of Extension* [On-line], 50(2). Article 2COM1. Available at: <http://www.joe.org/joe/2012april/comm1.php>
- Garud, R., Jain, S., & Tuertscher, P. (2008). Incomplete by design and designing for incompleteness. *Organization Studies*, 29(3), 351-371.
- Johnson, S. (2010). *Where good ideas come from: The natural history of innovation*. New York: Riverhead Books.
- Leopold, A. (1993). *Round river: From the journals of Aldo Leopold*. New York: Oxford University Press.
- Mau, B. (1999). An incomplete manifesto for growth. *ID. Magazine*, March/April, 56-58.
- McGrath, D. M., Conway, F. D. L., & Johnson, S. (2007). The Extension hedgehog. *Journal of Extension* [On-line], 45(2). Article 2FEA1. Available at: <http://www.joe.org/joe/2007april/a1.php>
- Meyer, N. J., Scott, S., Strauss, A. L. Nippolt, P. L., Oberhauser, K.S., & Blair, R. B. (2014). Citizen science as a REAL environment for authentic scientific inquiry. *Journal of Extension* [On-Line], 52(4). Article 4IAW3. Available at <http://www.joe.org/joe/2014august/iw3.php>.
- Meyer, N. J., & Munson, B. H. (2005). Personalizing and empowering environmental education through expressive writing. *Journal of Environmental Education*, 36(3), 6-14.
- Meyer, R. L. (2005). The effects of green space on urban children's sense of community. In Gilbertson, K., & Murphy, A. (Eds.), *Proceedings from the Minnesota Association for Environmental Education Twelfth Annual Conference*. Saint Paul: Minnesota Association for Environmental Education.
- Rittel, H., & Webber, M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4, 155-169.
- Skuzza, J. (2005). Understanding the experiences of immigrant adolescents: Acculturation is not the same as assimilation. In P. Witt & L. Caldwell (Eds.), *Recreation and youth development*. State

College, PA: Venture Publishing.

Somech, A., & Drach-Zahavy, A. (2011). Translating team creativity to innovation implementation: The role of team composition and climate for innovation. *Journal of Management*, 39(3), 684-708.

Somech, A., & Drach-Zahavy, A. (2001). Understanding team innovation: The role of team processes and structures. *Group Dynamics: Theory, Research, and Practice*, 5(2), 111-123.

Storksdieck, M., Ellenbogen, K., & Heimlich, J. E. (2005). Changing minds? Reassessing outcomes in free-choice environmental education. *Environmental Education Research*, 11(3), 353-369.

Tucker, B. (2012). The flipped classroom: Online instruction at home frees class time for learning. *Education Next*, Winter, 82-83.

West, B. C., Drake, D., & Londo, A. (2009). Extension: A modern-day pony express? *Journal of Extension* [On-line], 47(2). Article 2COM1. Available at: <http://www.joe.org/joe/2009april/comm1.php>

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