2022

2022 Nebraska Water Leaders Academy Final Report

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Nebraska State Irrigation Association
Water Leaders Academy

The Nebraska Environmental Trust
preserving NATURAL NEBRASKA™ for future generations

Nebraska Water Leaders Academy

Water Futures Partnership-Nebraska

waterleadersacademy.org

Partner

University of Nebraska-Lincoln ***This work was supported by the USDA National Institute of Food and Agriculture, Hatch/Evans-Allen/McIntire Stennis project 1011420.***

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Executive Summary

Fifteen participants completed the 2022 Water Leaders Academy bringing the total number of graduates to 168 since the inception of the program in 2011. Assessments of participants' transformational leadership skills, champion of innovation skills, water knowledge, engagement with water issues, civic capacity, entrepreneurial leadership behaviors, and boundary spanning skills increased significantly over the course of the year, according to both the participants and their raters. Feedback from the participants was highly positive and constructive. Academy planners are addressing participant concerns. Results of the program assessment indicate that the curriculum is meeting Academy objectives. Therefore, only minor changes are planned for the 2023 Academy curriculum. The emergence of Academy alumni as leaders worldwide attests to its ongoing success.

2022 Nebraska Water Leaders Academy - Final Report

Introduction

The 2022 class returned to the normal year-long program for the first time since 2019. The 2020 class was postponed due to the COVID-19 pandemic and the start of the 2021 class was delayed until June and compressed to six months.

Effective management of Nebraska's water resources is evermore challenged by weather, climate, technology, socioeconomic trends, and regulation. Anthropogenic climate change, declining water tables and stream flows, increasing demands on freshwater, aging infrastructure, fiscal constraints, and impacts on aquatic organisms are particularly imminent water challenges in Nebraska and elsewhere (Pahl-Wostl et al., 2013; Pittock et al., 2008). Sustaining freshwater ecosystem services in the face of emerging environmental threats is widely recognized as a pressing global challenge (Pittock et al., 2013; Rockström et al., 2009, Millennium Ecosystem Assessment, 2005).

Changes in Nebraska's water-resource conditions, as well as a pervasive public desire for sound policies, starkly underscore the need for knowledgeable and skilled leaders (Burbach & Reimers-Hild, 2019; Lincklaen Arriëns & Wehn de Montalvo, 2013; Morton & Brown, 2011). Leadership capacity is an essential driver of water management changes (Brasier et al., 2011; Burbach & Reimers-Hild, 2019; Pahl-Wostl et al., 2011; Taylor et al., 2012). Moreover, leadership capacity enables innovation, shared visions of a more sustainable water future, and collective success (McIntosh & Taylor, 2013).

Academy participants exploring a waterfall in the Niobrara River Valley.

The Nebraska State Irrigation Association (NSIA), the state's oldest water association, and its Executive Director Lee Orton addressed the need for such leadership by establishing the Nebraska Water Leaders Academy (hereafter "Academy") and the nonprofit Water Futures Partnership-Nebraska in 2011 in partnership with the University of Nebraska-Lincoln (UNL). Since that time, NSIA

has served as the primary sponsor and has successfully garnered funding support for the Academy from water-related businesses, private citizens, and other interests. Founding partner Diamond Plastics Corporation sponsored the first Academy and the Nebraska Environmental Trust has provided major funding support for the Academy since 2012.

The Academy is a year-long program consisting of six two-day sessions held in different communities across the state. There are three curricular components of the Academy: leadership, policy/law, and natural resources. Drs. Mark Burbach and Connie Reimers-Hild developed the leadership component of the Academy with major contributions from accomplished faculty and staff at UNL (See Appendix 1). Dr. Gina Matkin participates with ongoing development of the leadership curriculum and provides input on the team projects. Leading experts in Nebraska water policy, law, and natural resources from UNL; federal, state, and local agencies; NGOs; and other entities developed curriculum in their respective fields. Academy alumni serve on the planning committee.

Academy participants and Niobrara River Valley guides.

Every year, the Academy has achieved its goal of including statewide participants with diverse backgrounds and interests. Moreover, the water leadership capacity in Nebraska has grown for more than 10 years through coordinated educational and developmental experiences. These experiences are provided by experts from various disciplines (Appendix I). To develop Nebraska's future water leaders, and to trigger lasting change in their abilities (Geller, 1992; McCauley et al., 2010), the Academy employs a process-based curriculum with developmental

experiences and opportunities to learn from these experiences (Barbuto & Etling, 2002; McCauley et al., 2010; Newman et al., 2007; Popper & Mayseless, 2007).

The objectives of the Nebraska Water Leaders Academy are to:

- Develop scientific, social, and political knowledge about water and related natural resources.
- Provide training, professional presentations, and experiential learning activities that instill sound and comprehensive knowledge about efficient, economic, and beneficial uses of Nebraska's water resources.
- Develop and enhance critical thinking and leadership skills through process-based educational activities.
- Encourage and assist participants toward active involvement in water-policy issues at all levels of governance.
- Integrate multi-disciplinary educational and leadership programs to provide life-long leaders in water resources management.
- Challenge traditional paradigms about water resources and facilitate creative solutions to water-resources problems.
- Increase civic capacity and community engagement.

The Academy has graduated a total of 168 participants with a wide range of professional, geographic, and water resources backgrounds. Fifteen individuals completed the 2022 Academy. Table 1 lists the curriculum topics covered in the 2022 Academy.

Academy participants exploring the water holding areas of the Omaha MUD Platte West Water Treatment Plant.

Table 1: *Curriculum topics presented by experts at the 2022 Nebraska Water Leaders Academy* ([1] = Session)

Leadership	Policy/Law	Resource
Transformational Leadership[1,2,5,6]	Nebraska Water Law[1]	Nebraska Climate/Weather[1]
Gallup Strengths[1]	Briefing on Legislative Process[1]	Nebraska Geology[1]
Communicating Strategically[1]	Water Quality in Nebraska & NDEE Programs[1]	Nebraska Groundwater Hydrology[1]
Boundary Spanning Behavior[1,2]	NDEE Programs related to Ag[2]	Water Efficiency Technology[2]
Communicating across Differences[2]	Platte/Republican Interface[2]	Ecology of the Platte River & Sandhills[2]
Collaborative Water Management[2]	Nebraska's Integrated Water Resource Management[3]	Nebraska Climate/Weather[2]
Risk Communication[3]	NDEE Water Well Standards and Waste Water[3]	Omaha's Combined Sewer Separation Project[3]
Leading Innovation[3]		PMNRD Flood Control & Water Quality Projects[3]
Common Pool Resource Management[3]		Omaha Wastewater Treatment & Water Production[3]
Community Capitals Framework[4]	Water, Climate, and Health in Nebraska[3]	
Civic Capacity[4]	Panhandle NRD Projects & Programs[4]	
NRD Public & Youth Education[5]	North Platte Basin Integrated Water System[4]	North Platte Irrigation Infrastructure[4]
Your Future as Leaders[6]	Nebraska's Public Power & Irrigation Districts History[4]	Panhandle Groundwater Modeling Projects[4]
Curiosity[6]	Water Markets[4]	Niobrara River Valley Geology and Ecology[5]
Empowerment[6]	History of NRDs[4]	Niobrara Scenic River ORVs[5]
Motivation[6]	Bazile Groundwater Mngt Prog[5]	
Next Steps – Leadership Opportunities[6]	Niobrara National Scenic River[5]	
	Middle Niobrara Tourism[5]	
	Nebraska Wellhead Protection Program[5]	
	NRC Funding Programs[5]	
Community Involvement & Leadership Opportunities[6]		
	Missouri River-Past, Present, Future[6]	
	NE Water Policy Compared to Other Great Plains States[6]	

This report summarizes the evaluation of the 2022 Academy as well as the cumulative evaluation of the Academy since its inception. These results assess the effectiveness of the

Academy in meeting its objectives and they will inform planning the twelfth Academy class in 2023.

Program Evaluation

Program evaluation is an essential component of the Academy because it: (1) assesses the development of participants' leadership knowledge, skills, and behaviors; (2) evaluates the instructional methods used in the Academy; and (3) provides constructive feedback from participants; and guides the development of future sessions. The 2022 class evaluation consisted of session evaluations and an empirical analysis using leadership assessments performed before and after attendance (Figure 1). Participants also completed a Gallup CliftonStrengths assessment prior to their attendance for self-awareness purposes only. The six session evaluations gauged participants' change in knowledge levels in the areas of leadership, policy, and water issues. Participants also provided subjective feedback about the major points they learned from each session, a summary of the session experience, and other important comments to the Academy planners. Evaluations enable session planners to modify and adjust future sessions, particularly with regard to topics and presenters. Feedback from 2022 participants and preceding classes is also being used to plan the 2023 Academy.

Dr. Renata Rimšaitė demonstrating the amount of water available to states within the High Plains Aquifer.

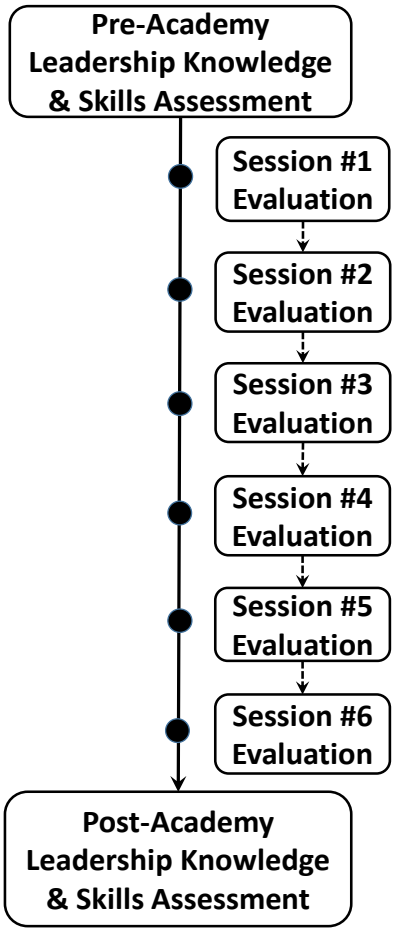

Figure 1: Flow chart of the Nebraska Water Leaders Academy program evaluation.

The empirical analysis measures the participants' change in leadership knowledge, skills, and behavior throughout the 2022 Academy. This analysis gauges the effectiveness of the curriculum by evaluating the participants' research-based transformational leadership behaviors, their capacity to engage in civic issues, their innovation behaviors associated with positive individual and organizational outcomes, and their abilities in boundary spanning. Curiosity, a facet of Openness to Experience, is a major personality dimension that we assessed for the first time in 2022. This dimension may reflect a person's motivation to engage in water policy and/or management. Participants' change in knowledge of, and engagement with, water issues in Nebraska is also assessed. Finally, a participant's level of entrepreneurial leadership behaviors is assessed. This analysis is ongoing because it includes the cumulative results from all classes (2011-2022).

Methodology

Participants

All fifteen 2022 participants completed the pre- and post-Academy assessments. There were nine females and six males. The participants' ages ranged from 26 to 55 years with a median age of 33 years.

Academy participants examining water technology at the Middle Niobrara NRD demonstration and training facility.

Procedures

UNL Institutional Review Board (IRB) approved the research prior to the assessment. A research-based questionnaire was employed to assess changes in leadership skills among participants about, and behaviors with respect to Nebraska's water issues. Items were also developed to measure participants' knowledge and behavior. The survey was administered online using Qualtrics™ software.

Academy participants were notified of the online questionnaire three weeks prior to the first Academy session in January 2022 and given instructions for its completion. This process was repeated three weeks prior to the final session in November 2022. Participants were also asked to invite others with whom they have a professional relationship to rate their leadership behaviors. Raters have included supervisors, peers, close colleagues, and those with whom participants work closely outside of their organizations. Participants sent these raters an e-mail invitation that included the link to the online questionnaire.

Measures

The online questionnaire consisted of four research-based leadership assessments and an additional section that assesses participants' knowledge about, and behaviors with respect to, Nebraska's water issues. All the instruments used in the questionnaire have satisfactory reliability and validity; thus, they consistently and accurately measure the targeted skills and behaviors.

The first assessment was the Multifactor Leadership Questionnaire (MLQ-5) developed by Bass and Avolio (1995). The MLQ-5 (leader version and rater version) is a 45-item, 5-point Likert-type scale that is used to evaluate an individual's leadership style. The MLQ-5 measures characteristics of transformational and transactional leadership. Only the transformational elements were used in the evaluation.

Transformational leadership comprises four dimensions (Antonakis, Avolio, & Sivasubramaniam, 2003). *Idealized Influence* refers to the charisma of the leader, whether the leader is perceived as being confident and powerful, whether the leader is viewed as focusing on higher-order ideals and ethics, and whether actions are centered on values, beliefs, and a sense of mission. *Inspirational Motivation* refers to the ways leaders energize others by viewing the future with optimism, stressing ambitious goals, projecting an idealized vision, and communicating to others that the vision is achievable. *Intellectual Stimulation* refers to leader actions that appeal to others' sense of logic and analysis by challenging others to think creatively and find solutions to difficult problems. *Individualized Consideration* refers to leader behavior that contributes to others' satisfaction by advising, supporting, and paying attention to the present and potential individual needs of others, and thus allowing them to develop and self-actualize.

The second assessment was a modified Champions of Innovation scale developed by Howell, Shea, and Higgins (2005). It is a 14-item, 5-point Likert-type scale that measures characteristics of champions of innovation. The scale was modified by eliminating one or two items from each of the three subscales for a total of 10 items. The constructs' three subscales are: *enthusiasm and confidence in what innovation can do*, *persisting under adversity*, and *getting the right people involved*.

A third assessment measures characteristics of civic capacity. The civic capacity scale was developed by Cramer (2015). Nine items of the 5-point Likert-type scale were used. Civic

capacity is "the combination of interest and motivation to be engaged in public service and the ability to foster collaborations through the use of one's social connections and through the pragmatic use of processes and structures" (Sun & Anderson, 2012, p. 317). Civic capacity is composed of three dimensions. *Civic Drive* refers to the desire and motivation to be involved with social issues. *Civic Connections* refers to the social capital found in the leader's internal and external social networks that specifically enables and promotes the success of collaboration. *Civic Pragmatism* refers to the ability to translate social opportunities, by leveraging structures and mechanisms for collaboration.

A fourth assessment asks participants about their *entrepreneurial leadership behaviors* before and after the Academy. Five items were used to measure entrepreneurial leadership behavior. An entrepreneurial individual is described as an innovative person who is open to change and recognizes and pursues opportunities irrespective of existing resources, such as time, money, personal support and/or technology. Entrepreneurial leaders are noted for their ability to develop a compelling vision, recognize opportunities where others do not, operate in a highly unpredictable atmosphere, influence others (both followers and a larger constituency), absorb uncertainty and risk, build commitment, and overcome barriers (e.g., Renko, Tarabishy, Carsrud, & Brännback, 2015).

A fifth assessment of boundary spanning abilities was added in 2021. Boundary spanners are individuals who reach across organizational borders to build relationships, interconnections, and interdependencies in the management of complex problems. Often referred to a "inter-agency ambassadors" or "gate keepers", they actively work toward collaboration, attempting to link diverse stakeholders, processes, and information from multiple perspectives (Coleman & Stern, 2018; Delozier & Burbach, 2021; Poblete & Bengston, 2020). A 21-item, 5-point Likert-type scale was developed to measure six dimensions of boundary spanning. The six dimensions are…. Authentic Leadership, Trustworthiness, Autonomy, Perspective-taking, Relationship Developer, and Effective Science Communication. *Authentic Leadership* is the ability to lead by example but also motivate others to seek a shared vision. *Trustworthiness* is the ability to be authentic, honest, and transparent, and to act in the best interests of others. *Autonomy* is the ability to act on behalf of one's home organization yet still work toward a common goal, the inner conviction to encourage "outside-the-box thinking," and an ability to apply multiple perspectives to a situation. *Perspective taking* is the ability to recognize, respect, and manage

diversity in thought and opinion particularly when working across multi-disciplinary boundaries. *Relationship developer* is the ability to develop and maintain relationships across internal and external borders; using their personal network may increase their ability to perform and move through the various domains, levels, and scales inherent in natural resources management. *Effective Science Communication* is the ability to interpret complex and/or technical information, provide constructive feedback, encourage a two-way exchange of information, and adeptly reframe issues.

Curiosity, a facet of Openness to Experience, is a major personality dimension that was added to the questionnaire in 2022. Curiosity, along with other personal characteristics like innovativeness (measured by the Academy with the Champions of Innovation scale) captures features of a person's openness to intellectual engagement. Moreover, curiosity may reflect a person's motivation to engagement in water policy and/or management.

The questionnaire also asks participants about their Nebraska water issues knowledge and engagement. The knowledge and behavior scale is an 8-item, 5-point Likert-type scale that measures *awareness* of water issues in Nebraska and *engagement* in water issues in Nebraska.

The internal reliability for the all the scales was 0.70 or greater. Nunnally and Bernstein (1994) concluded that acceptable minimum reliability (Cronbach's alpha) for measurement scales should be 0.70.

Results from 2022 Nebraska Water Leaders Academy

Leadership Knowledge, Skills, and Behaviors – Participants' Perspectives

The pre- and post-Academy transformational leadership behaviors of participants were assessed through a paired-samples *t*-test. Participants' transformational leadership behaviors significantly increased from pre-Academy (M = 2.71 SD = 0.51 to post-Academy (M = 2.96, SD = 0.46); $t(14) = 3.76$, $p = 0.002$, $d = .26$. Results are summarized in Table 2. All four of the transformational leadership behaviors were significantly higher at the end of the Academy.

Table 2. *Results of Paired-Samples t-Tests Comparing Participants' Transformational Leadership Behaviors Before and After the Academy (N = 15)*

Transformational Leadership Behavior	Pre-Academy M	Pre-Academy SD	Post-Academy M	Post-Academy SD	Diff.	*t*	df	Sig.	Cohen's *d*
Idealized Influence	2.66	0.69	2.86	0.63	0.20	3.00	14	.009**	0.26
Inspirational Motivation	2.75	0.81	2.98	0.71	0.23	2.43	14	.029*	0.37
Intellectual Stimulation	2.65	0.40	2.92	0.44	0.27	2.54	14	.023*	0.41
Individual Consideration	2.78	0.51	3.08	0.43	0.30	3.38	14	.004**	0.34
Total Trans. Leadership	2.71	0.51	2.96	0.46	0.25	3.76	14	.002**	0.26

* $p < .05$. ** $p < .01$.

A paired-samples *t*-test compared 2022 participants' pre-Academy and post-Academy champion of innovation behaviors. Participants' innovation behavior scores significantly increased from pre-Academy ($M = 2.76$, $SD = 0.59$) to post-Academy ($M = 3.01$, $SD = 0.66$); $t(14) = 3.82$, $p = 0.002$, $d = .28$. Results are summarized in Table 3. There was a significant increase in all three champions of innovation dimensions.

Table 3. *Results of Paired-Samples t-Tests Comparing Participants' Champion of Innovation Behaviors Before and After the Academy (N = 15)*

Champion of Innovation Behavior	Pre-Academy M	Pre-Academy SD	Post-Academy M	Post-Academy SD	Diff.	*t*	df	Sig.	Cohen's *D*
Expresses Enthusiasm and Confidence in Innovation	2.47	0.75	2.78	0.83	0.31	3.02	14	.009**	0.41
Persistence under Adversity	2.64	0.73	2.97	0.76	0.33	3.62	14	.003**	0.37
Get Right People Involved	3.11	0.48	3.29	0.56	0.18	2.97	14	.010**	0.24
Total Champ. of Innov.	2.74	0.59	3.01	0.66	0.27	3.82	14	.002**	0.28

** $p < .01$.

A paired-samples *t*-test was conducted to compare 2021 participants' pre-Academy and post-Academy Nebraska water issues knowledge and engagement in water issues. Participants' awareness of water issues significantly increased from pre-Academy ($M = 2.15$, $SD = 0.69$) to post-Academy ($M = 3.13$, $SD = 0.63$; $t(14) = 10.25$, $p = 0.001$, $d = .37$. Results are summarized in Table 4. There was a significant increase in participants engagement in water policy issues

from pre-Academy (M = 2.12, SD = 0.87) to post-Academy (M = 2.88, SD = 0.95); $t(14) = 8.56$, $p = 0.001$, $d = .35$.

Table 4. *Results of Paired-Samples t-Tests Comparing Participants' Nebraska Water Knowledge and Engagement Before and After the Academy (N = 15)*

Water Knowledge & Engagement	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Awareness	2.15	0.69	3.13	0.63	0.97	10.25	14	.001***	0.37
Engagement	2.12	0.87	2.88	0.95	0.76	8.56	14	.001***	0.35

*** $p < .001$.

A paired-samples *t*-test was conducted to compare 2022 participants' pre-Academy and post-Academy civic capacity. Participants' civic capacity significantly increased from pre-Academy (M = 2.12, SD = 0.95) to post-Academy (M = 2.70, SD = 0.64; $t(14) = 4.60$, $p = 0.001$, $d = .49$. Results are summarized in Table 5. There was a significant increase in two of the civic capacity dimensions.

Table 5. *Results of Paired-Samples t-Tests Comparing Participants' Civic Capacity Before and After the Academy (N = 15)*

Civic Capacity	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Drive	2.27	1.09	2.64	0.62	0.37	1.94	14	.073	0.75
Connections	2.20	0.98	2.89	0.80	0.69	5.77	14	.001***	0.46
Pragmatism	1.89	1.03	2.56	0.82	0.67	4.70	14	.001***	0.55
Total Civic Capacity	2.12	0.95	2.70	0.64	0.58	4.60	14	.001***	0.49

* **$p < .001$

A paired-samples *t*-test was conducted to compare 2022 participants' pre-Academy and post-Academy entrepreneurial leadership behavior. Participants' entrepreneurial leadership behavior significantly increased from pre-Academy (M = 2.53, SD = 0.59) to post-Academy (M = 3.01, SD = 0.59; $t(14) = 4.13$, $p = 0.001$, $d = 0.30$. Results are summarized in Table 6.

Table 6. *Results of Paired-Samples t-Test Comparing Participants' Entrepreneurial Leadership Behavior Before and After the Academy (N = 15)*

	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Entrepreneurial Behav.	2.53	0.59	2.85	0.59	0.32	4.13	16	.001***	0.30

** $p < .01$.

A paired-samples *t*-test was conducted to compare 2022 participants' pre-Academy and post-Academy boundary behavior. Participants' boundary spanner behavior significantly increased from pre-Academy (M = 2.74, SD = 0.54) to post-Academy (M = 3.06, SD = 0.48; $t(14) = 4.11$, $p = 0.001$, $d = 0.31$. Results are summarized in Table 7. There was a significant increase in five of the six boundary spanning dimensions.

Table 7. *Results of Paired-Samples t-Tests Comparing Participants' Boundary Spanner Behaviors Before and After the Academy (N = 15)*

Boundary Spanner Behavior	Pre-Academy M	Pre-Academy SD	Post-Academy M	Post-Academy SD	Diff.	*t*	df	Sig.	Cohen's *d*
Trustworthiness	3.20	0.60	3.40	0.40	0.40	2.55	14	.023*	0.30
Autonomy	2.53	0.69	2.71	0.71	0.18	1.84	14	.088	0.38
Authentic Leadership	2.67	0.73	3.07	0.50	0.40	3.06	14	.009**	0.51
Perspective Taking	2.75	0.63	3.20	0.49	0.45	4.73	14	.001***	0.37
Relationship Building	2.78	0.59	3.11	0.61	0.33	3.46	14	.004**	0.38
Effective Sci. Comm.	2.50	0.69	2.90	0.79	0.40	2.91	14	.011*	0.53
Total Boundary Spanner	2.74	0.54	3.06	0.48	0.32	4.11	14	.001***	0.31

* $p < .05$. ** $p < .01$. *** $p < 001$.

Curiosity was assessed for the first time in 2022. A paired-samples *t*-test was conducted to compare 2022 participants' pre-Academy and post-Academy curiosity. Participants' curiosity significantly increased from pre-Academy (M = 3.12, SD = 0.65) to post-Academy (M = 3.39, SD = 0.63; $t(14) = 3.08$, $p = 0.008$, $d = 0.34$. Results are summarized in Table 8.

Table 8. *Results of Paired-Samples t-Test Comparing Participants' Curiosity Behavior Before and After the Academy (N = 15)*

	Pre-Academy M	Pre-Academy SD	Post-Academy M	Post-Academy SD	Diff.	*t*	df	Sig.	Cohen's *d*
Curiosity	3.12	0.65	3.39	0.63	0.27	3.08	14	.008**	0.34

** $p < .01$.

Leadership Knowledge, Skills, and Behaviors – Raters' Perspectives

The effects of self-report bias and social desirability issues are minimized if multiple data sources are used to assess leadership behaviors (Donaldson & Grant-Vallone, 2002). Accordingly, feedback from multiple raters on Academy participants' leadership behaviors is another way of gauging the impact of the Academy on participants, and another means of

assessing the achievement of Academy objectives. Forty-nine individuals responded to invitations from 2022 Academy participants to rate their leadership behaviors prior to the Academy and 46 individuals rated participants at the end of the Academy. The number of raters for each participant ranged from 0 to 5 on the pre-Academy questionnaire and 0 to 4 on the post Academy questionnaire. One person did not have raters on the pre-Academy questionnaire and another person did not have a rater on the post-Academy questionnaire. Excluding the participants that did not have raters, the average number of raters was 3.5 for the pre-Academy questionnaire and 3.3 for the post-Academy questionnaire.

An independent samples *t*-test comparing raters' perspectives on participants' transformational leadership increased significantly from pre-Academy (M = 3.13, SD = 0.53) to post-Academy (M = 3.44, SD = 0.41); $t(93) = 3.24$, $p = 0.002$, $d = .46$. Results are summarized in Table 9. Raters assessed a significant increase in all four transformational leadership behaviors.

Table 9. *Results of Independent Samples t-Tests Comparing Raters' Perceptions of Participants' Transformational Leadership Behaviors Before and After the Academy*

Transformational Leadership Behavior	N	M	SD	*t*	df	Sig.	Cohen's *d*
Idealized Influence – Pre-Academy	49	3.12	.53	3.57	93	.001***	0.48
Idealized Influence – Post-Academy	46	3.47	.42				
Inspirational Motivation – Pre-Academy	59	3.01	.71	2.26	93	.026*	0.71
Inspirational Motivation – Post-Academy	46	3.34	.70				
Intellectual Stimulation – Pre-Academy	49	3.08	.59	2.95	93	.004**	0.51
Intellectual Stimulation – Post-Academy	46	3.39	.42				
Individual Consideration – Pre-Academy	49	3.32	.37	3.18	93	.002**	0.35
Individual Consideration – Post-Academy	46	3.56	.34				
Total Trans. Leadership – Pre-Academy	49	3.13	.50	3.24	93	.002**	0.46
Total Trans. Leadership – Post-Academy	46	3.44	.41				

* $p < .05$. ** $p < .01$. *** $p < .001$

An independent samples *t*-test comparing raters' perspectives on participants' champion of innovation behavior showed a significant increase from pre-Academy (M = 3.09, SD = 0.58) to post-Academy (M = 3.46, SD = 0.44); $t(93) = 3.83$, $p = 0.001$, $d = .52$. Results are summarized in Table 10. Raters assessed a significant increase in all three champions of innovation dimensions.

Table 10. *Results of Independent Samples t-Tests Comparing Raters' Perceptions of Participants' Champion of Innovation Behaviors Before and After the Academy*

Champion of Innovation Behavior	N	M	SD	*t*	df	Sig.	Cohen's *d*
Enthusiasm & Confidence – Pre-Academy	49	2.82	.92	2.79	93	.006**	0.79
Enthusiasm & Confidence – Post-Academy	46	3.28	.61				
Persistence – Pre-Academy	49	3.16	.52	3.54	93	.001***	0.48
Persistence – Post-Academy	46	3.51	.44				
Right People Involved – Pre-Academy	49	3.27	.56	3.08	93	.003**	0.50
Right People Involved – Post-Academy	46	3.59	.41				
Total Champ. of Innovation – Pre-Academy	49	3.09	.58	3.83	93	.001***	0.52
Total Champ. of Innovation – Post-Academy	46	3.46	.44				

** $p < .01$. *** $p < 001$.

An independent samples *t*-test comparing raters' perspectives on participants' awareness of water issues in Nebraska showed a significant increase from pre-Academy ($M = 2.93$, $SD = 0.57$) to post-Academy ($M = 3.49$, $SD = 0.51$); $t(93) = 4.79$, $p = 0.001$, $d = 0.57$. Raters also assessed a significant increase in participants' engagement in Nebraska water issues from pre-Academy ($M = 2.93$, $SD = 0.85$ to post-Academy ($M = 3.33$, $SD = 0.58$); $t(93) = 3.31$, $p = 0.001$, $d = .73$. Results are summarized in Table 11.

Table 11. *Results of Independent Samples t-Tests Comparing Raters' Perceptions of Participants' Nebraska Water Knowledge and Engagement Before and After the Academy*

Water Knowledge & Engagement	N	M	SD	*t*	df	Sig.	Cohen's *d*
Awareness – Pre-Academy	49	2.93	.61	4.79	93	.001***	0.57
Awareness – Post-Academy	46	3.49	.51				
Engagement – Pre-Academy	49	2.93	.85	3.31	93	.001***	0.73
Engagement – Post-Academy	46	3.33	.58				

*** $p < .001$.

An independent samples *t*-test comparing raters' perspectives on participants' civic capacity showed a significant increase from pre-Academy ($M = 2.74$, $SD = 0.73$) to post-Academy ($M = 3.24$, $SD = 0.62$); $t(93) = 3.57$, $p = 0.001$, $d = 0.68$. Results are summarized in Table 12. Raters assessed a significant increase in all three dimensions of civic capacity from pre-Academy to post-Academy.

Table 12. *Results of Independent Samples t-Tests Comparing Raters' Perceptions of Participants' Civic Capacity Before and After the Academy*

Civic Capacity	N	M	SD	*t*	df	Sig.	Cohen's *d*
Drive – Pre-Academy	49	2.67	.82	4.03	93	.001***	0.74
Drive – Post-Academy	46	3.28	.63				
Connections – Pre-Academy	49	2.84	.76	2.85	93	.005**	0.72
Connections – Post-Academy	46	3.26	.67				
Pragmatism – Pre-Academy	49	2.73	.79	2.99	93	.004**	0.76
Pragmatism – Post-Academy	46	3.20	.73				
Total Civic Capacity – Pre-Academy	49	2.74	.73	3.57	93	.001***	0.68
Total Civic Capacity – Post-Academy	46	3.24	.62				

** $p < .01$. *** $p < .001$.

An independent samples *t*-test comparing raters' perspectives on participants' entrepreneurial leadership behavior showed a significant increase from pre-Academy ($M = 3.01$, $SD = 0.74$) to post-Academy ($M = 3.33$, $SD = 0.53$); $t(93) = 2.44$, $p = 0.017$, $d = 0.65$. Results are summarized in Table 13.

Table 13. *Results of Independent Samples t-Test Comparing Raters' Perceptions of Participants' Entrepreneurial Behavior Before and After the Academy*

Entrepreneurial Behavior	N	M	SD	*t*	df	Sig.	Cohen's *d*
Entrepreneurial Behavior – Pre-Academy	49	3.01	.74	2.44	93	.017*	0.65
Entrepreneurial Behavior – Post-Academy	46	3.33	.53				

* $p < .05$.

An independent samples *t*-test comparing raters' perspectives on participants' boundary spanner behavior showed a significant increase from pre-Academy ($M = 3.11$, $SD = 0.46$ to post-Academy ($M = 3.48$, $SD = 0.31$); $t(93) = 4.47$, $p = 0.001$, $d = 0.39$. Results are summarized in Table 14. There was a significant increase in all six boundary spanning dimensions.

Table 14. *Results of Independent Samples t-Tests Comparing Raters' Perceptions of Participants' Transformational Leadership Behaviors Before and After the Academy*

Transformational Leadership Behavior	N	M	SD	*t*	df	Sig.	Cohen's *d*
Trustworthiness – Pre-Academy	49	3.41	.31	5.25	93	.001***	0.28
Trustworthiness – Post-Academy	46	3.59	.40				
Autonomy – Pre-Academy	49	2.97	.64	3.12	93	.002**	0.56
Autonomy – Post-Academy	46	3.33	.47				
Authentic Leadership – Pre-Academy	49	3.14	.57	4.01	93	.001***	0.49
Authentic Leadership – Post-Academy	46	3.54	.38				
Perspective Taking – Pre-Academy	49	3.11	.54	3.84	93	.001***	0.46
Perspective Taking – Post-Academy	46	3.47	.35				
Relationship Builder – Pre-Academy	49	3.05	.58	3.54	93	.001***	0.52
Relationship Builder – Post-Academy	46	3.47	.44				
Effective Sci. Comm. – Pre-Academy	49	3.01	.67	2.54	93	.013*	0.64
Effective Sci. Comm. – Post-Academy	46	3.34	.59				
Total Boundary Spanner – Pre-Academy	49	3.11	.46	4.47	93	.001***	0.39
Total Boundary Spanner – Post-Academy	46	3.48	.31				

* $p < .05$. ** $p < .01$.

An independent samples *t*-test comparing raters' perspectives on participants' curiosity showed a significant increase from pre-Academy ($M = 3.36$, $SD = 0.57$) to post-Academy ($M = 3.69$, $SD = 0.37$); $t(93) = 3.28$, $p = 0.001$, $d = 0.48$. Results are summarized in Table 15.

Table 15. *Results of Independent Samples t-Test Comparing Raters' Perceptions of Participants' Curiosity Before and After the Academy*

Curiosity	N	M	SD	*t*	df	Sig.	Cohen's *d*
Curiosity – Pre-Academy	49	3.36	.57	3.28	93	.001***	0.48
Curiosity – Post-Academy	46	3.69	.37				

*$p < .05$.

Results of the 2022 Academy participants' assessments show a significant change in transformational leadership behaviors, innovation behaviors, awareness of Nebraska water issues, engagement in water issues, civic capacity, entrepreneurial leadership behavior, and curiosity. These changes are evidence that the curriculum is meeting the objectives of the Academy.

While the overall results were statistically significant from both the participants' and raters' perspectives, the participants consistently scored themselves much lower than the raters

on all skills, abilities, personality traits. This was observed in class 10 as well but generally contrary to most other years when participants tended to rate themselves slightly higher than their raters. The 2022 class was more critical of their leadership skills and abilities.

2022 Session Evaluations

Session evaluations covered the specific topics addressed during each session. Participants concluded that their knowledge and understanding increased substantially after each session (Appendix II). Results provide strong support for the Academy's objectives. Participants' feedback was incorporated into session planning. Organizers made adjustments in subsequent sessions based on the feedback. For example, participants expressed more time to question panelists.

The participants' feedback is used to plan the 2023 Academy. Presenters that were commended by participants are being retained and new presenters will be invited. New leadership and water related topics are being investigated. Field trip destinations, presenters, group projects, and recruitment may be adjusted.

Post session evaluations are a valuable tool for gauging participants experience with the Academy. Feedback from participants will continue to guide the development and delivery of the Academy.

Cumulative Nebraska Water Leaders Academy Results

Leadership Knowledge, Skills, and Behaviors – Participants' Perspectives

Cumulative Participants

One hundred sixty-six of the 168 total Academy participants have completed the pre- and post-Academy assessment of leadership behaviors, champion of innovation behaviors, Nebraska water issues knowledge and behavior, and entrepreneurial leadership behavior since 2011. Forty-seven females and 119 males have completed the pre- and post-assessment (48 females and 120 males have completed the Academy). Respondents' ages ranged from 26 to 55 years with a median of 33 years.

A paired-samples *t*-test showed there has been a significant cumulative increase in the cumulative participants' transformational leadership behaviors from pre-Academy (M = 2.76, SD = 0.46) to post-Academy (M = 3.06 SD = 0.39); $t(165) = 12.89$, $p = 0.000$, $d = .30$. Results are summarized in Table 16. There has been a significant increase in all four transformational

leadership behaviors for Academy participants of eleven classes of the Academy from pre-Academy to post-Academy.

Table 16. *Results of Paired-Samples t-Tests Comparing Cumulative Participants' Transformational Leadership Behavior Before and After the Academy (N = 166)*

Transformational Leadership Behavior	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Idealized Influence	2.69	0.50	2.98	0.43	0.29	10.45	165	.000***	0.36
Inspirational Motivation	2.77	0.62	3.07	0.53	0.30	9.36	165	.000***	0.42
Intellectual Stimulation	2.74	0.56	3.08	0.47	0.34	10.84	165	.000***	0.40
Individual Consideration	2.84	0.53	3.11	0.41	0.27	8.66	165	.000***	0.40
Total Trans. Leadership	2.76	0.46	3.06	0.39	0.30	12.89	165	.000***	0.30

*** $p < .001$.

A paired-samples *t*-test showed there has been a significant increase in cumulative participants' champions of innovation behaviors from pre-Academy ($M = 2.94$, $SD = 0.51$) to post-Academy ($M = 3.23$, $SD = 0.44$); $t(165) = 11.63$ $p = 0.000$, $d = .32$. Results are summarized in Table 17. Eleven classes of Academy participants have demonstrated a significant increase in all three champions of innovation dimensions from pre-Academy to post-Academy.

Table 17. *Results of Paired-Samples t-Tests Comparing Cumulative Participants' Champion of Innovation Behaviors Before and After the Academy (N = 166)*

Champion of Innovation Behavior	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Expresses Enthusiasm and Confidence in Innovation	2.82	0.69	3.14	0.58	0.32	9.34	165	.000***	0.45
Persistence under Adversity	2.92	0.61	3.19	0.55	0.27	8.13	165	.000***	0.42
Get Right People Involved	3.08	0.58	3.35	0.51	0.27	8.76	165	.000***	0.39
Total Champ. of Innov.	2.94	0.51	3.23	0.44	0.29	11.63	165	.000***	0.32

*** $p < .001$.

A paired-samples *t*-test showed there has been a significant increase in awareness of Nebraska policy water issues for Academy participants from eleven classes of the Academy from pre-Academy ($M = 2.70$, $SD = 0.81$) to post-Academy ($M = 3.39$, $SD = 0.52$; $t(165) = 13.18$, $p =$

0.000, *d* = .67. Results are summarized in Table 18. There has been a significant increase in engagement in water policy issues for eleven classes of participants from pre-Academy (*M* = 2.51, *SD* = 0.90) to post-Academy (*M* = 3.07, *SD* = 0.73); *t*(165) = 11.55, *p* = 0.000, *d* = .62.

Table 18. *Results of Paired Samples t-Tests Comparing Cumulative Participants' Nebraska Water Knowledge and Engagement Before and After the Academy (N = 166)*

Water Knowledge & Engagement	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Awareness	2.70	0.81	3.39	0.52	0.69	13.18	165	.000***	0.67
Engagement	2.51	0.90	3.07	0.73	0.56	11.55	165	.000***	0.62

*** *p < .001.*

Civic capacity has been assessed since 2016. Thus, cumulative results for civic capacity represent the past six Academy classes. Results of a paired-samples *t*-test showed a significant increase in cumulative participants' civic capacity from pre-Academy (*M* = 2.27, *SD* = 0.83) to post-Academy (*M* = 2.02, *SD* = 0.64); *t*(101) = 10.34, *p* = 0.000, *d* = .52. Results are summarized in Table 19. There was a significant increase in all three civic capacity dimensions from pre-Academy to post-Academy.

Table 19. *Results of Paired-Samples t-Tests Comparing Cumulative Participants' Civic Capacity Before and After the Academy (N = 102)*

	Pre-Academy		Post-Academy						Cohen's
Civic Capacity	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Drive	2.37	0.92	2.75	0.76	0.38	6.76	101	.000***	0.58
Connections	2.37	0.94	3.00	0.72	0.63	9.90	101	.000***	0.64
Pragmatism	2.06	0.92	2.65	0.74	0.59	8.92	101	.000***	0.66
Total Civic Capacity	2.27	0.83	2.80	0.64	0.53	10.34	101	.000***	0.52

*** *p < .001.*

A paired-samples *t*-test of entrepreneurial leadership behavior showed there has been a significant increase in eleven Academy classes from pre-Academy (*M* = 2.68, *SD* = 0.68) to post-Academy (*M* = 2.99, *SD* = 0.58; *t*(165) = 8.79, *p* = 0.000, *d* = 0.46. Results are summarized in Table 20.

Table 20. *Results of Paired-Samples t-Test Comparing Cumulative Participants' Entrepreneurial Leadership Behavior Before and After the Academy (N = 166)*

	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Entrepreneurial Behav.	2.68	0.68	2.99	0.58	0.31	8.79	165	.000***	0.46

*** *p* < *.001*.

Boundary spanning was assessed for the first time in 2021. A paired-samples *t*-test of boundary spanning behavior showed there has been a significant increase in two Academy classes from pre-Academy (M = 2.67, SD = 0.44) to post-Academy (M = 3.03, SD = 0.39; $t(31)$ = 8.12, p = 0.000, d = 0.26. Results are summarized in Table 21. There was a significant increase in all six boundary spanning dimensions from pre-Academy to post-Academy.

Table 21. *Results of Paired-Samples t-Tests Comparing Cumulative Participants' Boundary Spanning Behavior Before and After the Academy (N = 32)*

Boundary Spanning Behavior	Pre-Academy		Post-Academy						Cohen's
	M	SD	M	SD	Diff.	*t*	df	Sig.	*d*
Trustworthiness	3.10	0.45	3.42	0.39	0.31	6.31	31	.000***	0.28
Autonomy	2.38	0.70	2.69	0.58	0.31	3.95	31	.000***	0.45
Authentic Leadership	2.61	0.58	3.04	0.42	0.43	5.51	31	.000***	0.44
Perspective Taking	2.62	0.55	3.02	0.47	0.40	6.98	31	.000***	0.32
Relationship Building	2.72	0.55	3.07	0.53	0.35	5.75	31	.000***	0.35
Science Communication	2.55	0.57	2.95	0.61	0.40	5.03	31	.000***	0.45
Total Boundary Spanning	2.67	0.44	3.03	0.39	0.36	8.12	31	.000***	0.26

*** *p* < *.001*.

Leadership Knowledge, Skills, and Behaviors – Raters' Perspectives

Cumulative Results of External Raters

A series of independent samples *t*-tests were conducted to compare the cumulative raters' perspective on Academy participants' transformational leadership behaviors. Four hundred fifty-six raters have completed pre-Academy assessments and 413 raters have completed post-Academy assessments. Results showed a significant increase from pre-Academy (M = 3.06, SD = 0.49) to post-Academy (M = 3.31, SD = 0.43); $t(867)$ = 7.36, p = 0.000, d = .46. Results are summarized in Table 22. The cumulated raters assessed a significant increase in all four transformational leadership behaviors.

Table 22. *Results of Independent Samples t-Tests Comparing Cumulative Raters' Perspectives of Participants' Transformational Leadership Behaviors Before and After the Academy*

Transformational Leadership Behavior	N	M	SD	*t*	df	Sig.	Cohen's *d*
Idealized Influence – Pre-Academy	456	3.05	.52	7.60	867	.000***	0.49
Idealized Influence – Post-Academy	413	3.30	.44				
Inspirational Motivation – Pre-Academy	456	3.09	.58	6.44	867	.000***	0.55
Inspirational Motivation – Post-Academy	413	3.33	.53				
Intellectual Stimulation – Pre-Academy	456	3.01	.56	7.82	867	.000***	0.53
Intellectual Stimulation – Post-Academy	413	3.29	.50				
Individual Consideration – Pre-Academy	456	3.07	.58	6.05	867	.000***	0.55
Individual Consideration – Post-Academy	413	3.29	.51				
Total Trans. Leadership – Pre-Academy	456	3.06	.49	7.36	867	.000***	0.46
Total Trans. Leadership – Post-Academy	413	3.31	.43				

*** $p < .001$.

An independent samples *t*-test comparing cumulative raters' perspectives of participants' innovation behaviors showed a significant increase from pre-Academy ($M = 3.18$, $SD = 0.49$) to post-Academy ($M = 3.46$, $SD = 0.43$); $t(867) = 9.00$, $p = 0.000$, $d = .46$. Results are summarized in Table 23. The cumulated raters assessed a significant increase in all three champions of innovation behaviors from pre-Academy to post-Academy.

Table 23. *Results of Independent Samples t-Tests Comparing Cumulative Raters' Perspective of Participants' Champion of Innovation Behaviors Before and After the Academy*

Champion of Innovation Behavior	N	M	SD	*t*	df	Sig.	Cohen's *d*
Enthusiasm & Confidence – Pre-Academy	456	3.06	.68	7.33	867	.000***	0.61
Enthusiasm & Confidence – Post-Academy	413	3.36	.53				
Persistence – Pre-Academy	456	3.23	.50	7.25	867	.000***	0.50
Persistence – Post-Academy	413	3.48	.49				
Right People Involved – Pre-Academy	456	3.25	.52	9.09	867	.000***	0.49
Right People Involved – Post-Academy	413	3.56	.46				
Total Champ. of Innov. – Pre-Academy	456	3.18	.49	9.00	867	.000***	0.46
Total Champ. of Innov. – Post-Academy	413	3.46	.43				

*** $p < .001$.

An independent samples *t*-test comparing raters' perspectives on water issues knowledge showed a significant increase pre-Academy ($M = 3.22$, $SD = 0.64$) to post-Academy ($M = 3.58$, $SD = 0.49$); $t(867) = 8.91$, $p = 0.000$, $d = .58$. Results are summarized in Table 24. Raters also

assessed a significant increase in cumulative participants' engagement with Nebraska water policy issues from pre-Academy (M = 3.04, SD = 0.76) to post-Academy (M = 3.42 SD = 0.60); $t(867) = 8.14$, $p = 0.000$, $d = .69$.

Table 24. *Results of Independent Samples t-Tests Comparing Cumulative Raters' Perspective of Participants' Nebraska Water Knowledge and Engagement Before and After the Academy*

Water Knowledge & Engagement	N	M	SD	t	df	Sig.	Cohen's *d*
Awareness – Pre-Academy	456	3.22	.64	8.91	867	.000***	0.58
Awareness – Post-Academy	413	3.57	.49				
Engagement – Pre-Academy	456	3.04	.76	8.14	867	.000***	0.69
Engagement – Post-Academy	413	3.42	.60				

*** $p < .001$.

Civic Capacity was assessed for the first time in 2016. Thus, cumulative results for civic capacity from the raters' perspective represent the past six Academy classes. Results of an independent t-test showed a significant increase in civic capacity from pre-Academy (M = 2.99, SD = 0.63) to post-Academy (M = 3.33, SD = 0.61); $t(572) = 6.64$, $p = 0.000$, $d = .62$. Results are summarized in Table 25. The cumulated raters assessed a significant increase in all three dimensions of civic capacity from pre-Academy to post-Academy.

Table 25. *Results of Independent Samples t-Tests Comparing Cumulative Raters' Perspective of Participants' Civic Capacity Before and After the Academy*

Civic Capacity	N	M	SD	*t*	df	Sig.	Cohen's *d*
Drive – Pre-Academy	302	2.98	.70	6.08	572	.000***	0.68
Drive – Post-Academy	272	3.32	.66				
Connections – Pre-Academy	302	3.01	.66	6.95	572	.000***	0.64
Connections – Post-Academy	272	3.38	.62				
Pragmatism – Pre-Academy	302	2.99	.66	5.68	572	.000***	0.65
Pragmatism – Post-Academy	272	3.30	.65				
Total Civic Capacity – Pre-Academy	302	2.99	.63	6.64	572	.000***	0.62
Total Civic Capacity – Post-Academy	272	3.33	.61				

*** $p < .001$.

An independent-samples t-test comparing cumulative raters' perspectives of participants' entrepreneurial leadership behavior showed a significant increase from pre-Academy (M = 3.14, SD = 0.58) to post-Academy (M = 3.37 SD = 0.57; $t(866) = 5.90$, $p = 0.000$, $d = 0.57$. Results are summarized in Table 26.

Table 26. *Results of Independent Samples t-Test Comparing Cumulative Raters' Perspective of Participants' Entrepreneurial Leadership Behavior Before and After the Academy*

Entrepreneurial Behavior	N	M	SD	t	df	Sig.	Cohen's *d*
Pre-Academy	455	3.14	.58	5.90	866	.000***	0.57
Post-Academy	413	3.37	.57				

*** $p < .001$.

Boundary spanning was assessed for the first time in 2021. Thus, cumulative results for boundary spanning from the raters' perspective represent the past two Academy classes. An independent-samples *t*-test comparing cumulative raters' perspectives of participants' boundary spanning behavior showed a significant increase from pre-Academy (M = 3.10, SD = 0.44) to post-Academy (M = 3.47 SD = 0.36; $t(197) = 6.40$, $p = 0.000$, $d = 0.41$. Results are summarized in Table 27. There was a significant increase in all six boundary spanning dimensions from pre-Academy to post-Academy.

Table 27. *Results of Independent Samples t-Tests Comparing Cumulative Raters' Perspective of Participants' Boundary Spanning Behavior Before and After the Academy*

Civic Capacity	N	M	SD	*t*	df	Sig.	Cohen's *d*
Trustworthiness – Pre-Academy	101	3.37	.37	5.50	197	.000***	0.35
Trustworthiness – Post-Academy	98	3.65	.34				
Autonomy – Pre-Academy	101	2.99	.58	5.48	197	.000***	0.52
Autonomy – Post-Academy	98	3.39	.46				
Authentic Leadership – Pre-Academy	101	3.09	.54	5.34	197	.000***	0.49
Authentic Leadership – Post-Academy	98	3.46	.44				
Perspective Taking – Pre-Academy	101	3.06	.54	5.26	101	.000***	0.50
Perspective Taking – Post-Academy	98	3.43	.45		98		
Relationship Building – Pre-Academy	101	3.06	.59	5.34	101	.000***	0.56
Relationship Building – Post-Academy	98	3.48	.51		98		
Science Comm – Pre-Academy	101	3.04	.60	4.43	197	.000***	0.58
Science Comm. – Post-Academy	98	3.41	.55				
Total Civic Capacity – Pre-Academy	101	3.10	.44	6.40	197	.000***	0.41
Total Civic Capacity – Post-Academy	98	3.47	.36				

*** $p < .001$.

Discussion

The results of the empirical analysis and the review of the session evaluations demonstrate that the Academy is meeting its objectives and is successfully developing future

water leaders. Academy participants demonstrated a significant increase in their leadership knowledge, skills, and behaviors as well as the personality trait curiosity. A series of educational modules was created in 2021 to increase participants' boundary spanning abilities. An educational module was created in 2022 to increase participants' curiosity and subsequently motivate them to engage in water policy and management. The empirical analysis showed that participants significantly increased their boundary spanning abilities. Participants also provided constructive and highly positive feedback overall. Moreover, participant concerns were addressed in subsequent sessions, and minor changes are planned for the 2022 Academy curriculum based on participants' feedback. The changes include a few new topics and presenters.

Multi-rater feedback demonstrates that others have observed an increase in Academy participants' leadership knowledge, skills, and behaviors. Results of raters' perceptions of 2022 participants' leadership knowledge, skills, and behaviors were statistically significant. Likewise, results from the cumulative perspective of raters of all 11 Academy classes were statistically significant.

Team Projects

2022 Class Projects

The goal of the class projects interesting and inspiring projects and with real-world applications. Several Academy alumni were approached for potential topics that could have real

world implication for water management or education. Three topics with descriptive information were compiled and presented to Academy participants. Participants ranked topics by preference. Subsequently, three teams were formed comprised of participants who had ranked the topic as their first or second choice. The first team compiled information about the number of drinking water wells in three counties of Nebraska. This information will be used by Cooperative Extension for water quality informational campaigns. The second team produced a pamphlet with current information on nitrate in drinking water. This information will be also used by Cooperative Extension for public health campaigns. The third team summarized zoning and development regulations in counties along the Central Platte River. This information will be useful to government agencies, NGOs, and private landowners interested in development along the Central Platte River.

Academy Alumni

Many Academy alumni are serving as water leaders in local, national, and global arenas. Several alumni have been elected to Natural Resources Districts boards of directors. Several others are preparing to run for election to the boards of directors of multiple Natural Resources Districts. Other alumni are involved in local water boards and planning committees. Academy alumni are also members of other community boards or organizations ranging from planning, community involvement, education, and church groups. Numerous alumni are engaged in local political and community organizations as employees or volunteers. Many alumni have assumed supervisory roles in their workplaces, and they credit the Academy for instilling the skills, confidence, and experience they needed to advance. Examples of leadership includes, but is not limited to, alumni serving as:

- Special Advisor to the Secretary of the U.S. Department of Agriculture
- Nebraska Natural Resources Commission members
- Nebraska Environmental Trust board member
- Nebraska State Irrigation Association member
- City council member
- Foundation board members (alumni are serving on a variety of different boards)
- Coordinator for a state senator

- Water round-table discussion participants and committee members who work within a Nebraska-focused water task force
- Director of a nature preserve.

Additionally, an Academy alumnus is teaching a geography and water resources course at the University of Nebraska-Omaha, using knowledge gained from his experience in the Academy. Three alumni apply leadership behaviors learned in the Academy to their cooperative extension programming. Two alumni have begun volunteering at her local elementary school and a science fair. One Academy alumnus is engaged in international water management. He works facilitate resolutions to transboundary water conflict in Afghanistan, Tajikistan, and Pakistan.

The service of alumni in leadership roles demonstrates that the Academy is fulfilling its specified goals while also facilitating individual achievement. Advances in science and technology, combined with uncertain policy modifications, political challenges, population growth and a massive evolution in consumer behaviors and expectations, have created a need for both incremental and radical innovation at local to global scales. The increasingly rapid rate of change calls for entrepreneurial leaders who can serve as champions of innovation with a focus on the future. The Academy teaches and measures these skills and abilities. Alumni are working, serving, and leading locally and globally. They are leading innovation to create change and a more positive future in areas ranging from politics to education and international water management.

Future Plans

Our analyses indicate that only minor changes in the Academy curriculum are necessary. The instructional methods are successful, and the session topics and instructors/presenters have been generally well received. The Academy planners will consider replacing a few instructors/presenters as per numerous constructive criticisms expressed by participants. The Academy planners are also considering how to include more discussion opportunities with leadership and water experts. The evolving nature of water issues in Nebraska requires the Academy to be proactive in the development of curriculum and the choice of instructors/presenters in future Academy programs, as well as consideration of instructors/presenters who understand principles of adult learning.

Alumni are strongly encouraged to maintain active involvement with the Academy. To wit, many alumni have served on the Academy planning team. Alumni have presented at Academy sessions and follow current activities on-line. Academy alumni are asked to keep the Academy organizers updated on their involvement in water issues and are included in announcements from the Academy planners. The Academy has a regular newsletter and maintains a Facebook page to communicate with alumni. Furthermore, alumni are invited to attend each session in 2022. The success of the 2015 and 2018 alumni reunions and alumni feedback indicate that alumni reunions are attractive and more should be planned. Therefore, there is ongoing discussion of an alumni reunion is ongoing.

Summary

Fifteen participants successfully completed the 2022 Academy bringing the total number of graduates to 168 since the inception of the program in 2011. Academy graduates have demonstrated increased transformational leadership behaviors, champion of innovation skills, water knowledge and engagement, civic capacity, entrepreneurial leadership behaviors, boundary spanning abilities, and curiosity. Alumni have emerged as leaders in their communities and beyond. The Academy continues to meet its objectives. It also continues to expand and evolve based on participant feedback and the research being conducted with participants. The success of the 11 classes of the Academy has provided a firm foundation on which to build and expand. The blending water science and policy with the development of leadership will continue to be of tremendous importance in the sustainable use of Nebraska's water resources and community capacity.

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Appendix I

Contributors to the 2022 Nebraska Water Leaders Academy

Instructor	Organization	Program Title	Session
Brooke Mott	UNL School of Natural Resources (SNR)	Icebreaker	#1 Lincoln
Heather Akin	UNL Department of Agricultural Leadership, Education and Communication (ALEC)	Communicating Strategically with Public Audiences and Stakeholders	#1 Lincoln
Megan Burda	Nebraska Extension	Gallup Strengths Finders	#1 Lincoln
Sen. Mike Hilgers	Nebraska Unicameral	NARD involvement and broadband bill	#1 Lincoln
Mark Burbach	UNL School of Natural Resources (SNR) Conservation & Survey Division (CSD)	Full Range Leadership (i.e., Transformational Leadership)	#1 Lincoln
Mark Burbach	UNL SNR CSD	Pre-Academy Leadership Skills Assessment	#1 Lincoln
LeRoy Sievers	Nebraska Dept. of Natural Resources	Water Law Primer	#1 Lincoln
J. Michael Jess	Water Resources Engineer (former director NDNR)	River Basin Compacts & Decrees	#1 Lincoln
Lee Orton	Nebraska State Irrigation Association (NSIA)	Agricultural and Environmental Sciences Communication	#1 Lincoln
Matt Joeckel	UNL SNR CSD	Geology of Nebraska	#1 Lincoln
Jesse Korus	UNL SNR CSD	Hydrology of Nebraska	#1 Lincoln
Jodi Delozier	NDSU	Bridging Boundaries – A Model for Effective Stakeholder Engagement (pt. 1)	#1 Lincoln
Gina Matkin	UNL Department of Agricultural Leadership, Education and Communication (ALEC)	Communicating Across Diverse Perspectives	#2 Kearney
Wes Eaton	Penn State University	Best Practices and Outcomes in Collaborative Approaches to Water Management: Integrating Research and Practice	#2 Kearney
Brad Edgerton	Frenchman Cambridge Irrigation District	Panel – Platte/Republican Interface	#2 Kearney
Jason Farnsworth	Platte River Recovery Implementation Project	Panel – Platte/Republican Interface	#2 Kearney
Devin Brundage	Central Nebraska Public Power & Irrigation Dist.	Panel – Platte/Republican Interface	#2 Kearney
Andy Bishop	Nebraska Rainwater Basin Joint Venture	Panel – Platte/Republican Interface	#2 Kearney
Jack Russell	Middle Republican NRD	Panel – Platte/Republican Interface	#2 Kearney
Kyle Shepard	NCORPE	Panel – Platte/Republican Interface	#2 Kearney
Mary Harner	UNK	Beauty, diversity, and ecology of the Platte River and Sandhills of central Nebraska conveyed through multimodal digital technologies	#2 Kearney
Jodi Delozier	NDSU	Bridging Boundaries – A Model for Effective Stakeholder Engagement (pt. 2)	#2 Kearney
Roric Paulman	Paulman Farms	Water Efficiency Technology Deployed on the Family Farm	#2 Kearney
Allen Dutcher	UNL SNR	Nebraska Climate/Weather	#2 Kearney
Ryan Chapman	Nebraska Department of Environmental Quality (NDEQ)	History of Federal and Nebraska Water Quality Laws, Regulations, and Policies	#2 Kearney
David Miesbach	NDEQ	NDEQ Standards, Programs, & Drinking Water Quality	#2 Kearney
Mike Zelensky	City of Omaha	Omaha's Combined Sewer Overflow Project	#3 Omaha
Jake Hansen	City of Omaha	Omaha's Combined Sewer Overflow Project	#3 Omaha
Sean Guinzy	Metropolitan Utilities District, Directot	Platte West Water Production Facility	#3 Omaha
Roger Groen	Metropolitan Utilities District, Plant Foreman	Platte West Water Production Facility	#3 Omaha
Mike Koenig	Metropolitan Utilities District, VP of Water Operations	Platte West Water Production Facility	#3 Omaha

Ray Hutzell	City of Omaha	Missouri River Wastewater Treatment Plant	#3 Omaha
Paul Woodward	Papio-Missouri NRD	Water Quality Projects and Flood Control Levees	#3 Omaha
Jesse Bell	UNMC	*Water, Climate, and Health in Nebraska*	#3 Omaha
Connie Reimers-Hild	Wild Innovation	Leading Like a Futurist	#3 Omaha
Jennifer Schellpeper	Nebraska Department of Natural Resources	Legislation Supporting Integrated Water Resource Management in Nebraska: Bringing Together Prior Appropriation and Correlative Water Rights	#3 Omaha
David Miesbach	NDEQ	NDEQ Standards, Programs, & Drinking Water Quality	#3 Omaha
Steven Wolf	Fides Munusque Fidele	Risk Communication	#3 Omaha
Cheryl Burkhart-Kriesel	Nebraska Extension, Panhandle Research & Extension Center (PREC)	Understanding the Community Context	#4 Scottsbluff
Mark Burbach	UNL SNR CSD	Exploring How Water Leaders Can Leverage Their Civic Capacity to Influence Their Communities	#4 Scottsbluff
Lee Orton	Nebraska State Irrigation Association (NSIA)	Nebraska's Public Power & Irrigation Districts History	#4 Scottsbluff
J. Michael Jess	Water Resources Engineer (former director NDNR)	Historical Development of Integrated Water System (Newlands projects) and Political Structures in the North Platte River valley	#4 Scottsbluff
Kevin Adams	Farmers Irrigation District	North Platte Reservoir & Irrigation System	#4 Scottsbluff
Dennis Strauch	Pathfinder Irrigation District	North Platte Reservoir & Irrigation System	#4 Scottsbluff
Richael Young	Mammoth Trading	Water Markets in Practice	#4 Scottsbluff
Pat O'Brien	Upper Niobrara-White NRD	Nebraska's Natural Resources Districts – A History and Examination of Programs and Projects/Upper Niobrara White NRD Projects & Programs	#4 Scottsbluff
Travis Glanz	South Platte NRD	South Platte NRD Projects and Programs	#4 Scottsbluff
Scott Schaneman	North Platte NRD	North Platte NRD Projects and Programs	#4 Scottsbluff
Thad Kuntz	Adaptive Resources, Inc.	Western Water Use Management Modeling	#4 Scottsbluff
Mike Murphy	Middle Niobrara NRD	NRD Public and Youth Education	#5 Valentine
Megan Grimes	Nebraska Association of Resources Districts	NRD Public and Youth Education	#5 Valentine
LeRoy Sievers	Nebraska Dept. of Natural Resources	Nebraska Natural Resources Commission Funding Programs	#5 Valentine
Mike Murphy	Middle Niobrara NRD	Panel - The Niobrara River Valley, The Past, The Present, The Future	#5 Valentine
Hector Santiago	National Park Service, Niobrara National Scenic River	Panel - The Niobrara River Valley, The Past, The Present, The Future	#5 Valentine
Terry Julesgard	Lower Niobrara-White NRD	Panel - The Niobrara River Valley, The Past, The Present, The Future	#5 Valentine
Jen Corman	Northern Prairies Land Trust	Panel - The Niobrara River Valley, The Past, The Present, The Future	#5 Valentine
Scott Wessel	Nebraska Game & Parks Commission	Panel - The Niobrara River Valley, The Past, The Present, The Future	#5 Valentine
Megan Grimes	Nebraska Association of Resources Districts	Panel - The Niobrara River Valley, The Past, The Present, The Future	#5 Valentine
Scott Snell	Orton Management	Panel Moderator	#5 Valentine
Sue Lackey	UNL SNR CSD	Niobrara River Valley Geology	#5 Valentine
Regina Osburn	Cherry County Tourism & Valentine Visitor's Center	Tourism in the Middle Niobrara River Region	#5 Valentine
Tatiana Davila	Nebraska Department of Environmental Quality (NDEQ)	Nebraska Wellhead Protection Program	#5 Valentine
Annette Sudbeck	Lewis & Clark NRD	Panel - Bazile Groundwater Management Area Program	#5 Valentine
Jeremy Milander	Nebraska Extension	Panel - Bazile Groundwater Management Area Program	#5 Valentine

Tatiana Davila	Nebraska Department of Environmental Quality (NDEQ)	Panel - Bazile Groundwater Management Area Program	#5 Valentine
Brad Dunbar	Lindsay Corp.	Panel - Your Future as Leaders	#6 Nebraska City
Kate Bolz	USDA Rural Development	Panel - Your Future as Leaders	#6 Nebraska City
Matt Lukasiewicz	Loup Basin Reclamation District	Panel - Your Future as Leaders	#6 Nebraska City
Scott Snell	Orton Management	Panel Moderator	#6 Nebraska City
Brooke Mott	UNL School of Natural Resources (SNR)	Curiosity	#6 Nebraska City
Renata Rimsaite	Daugherty Water for Food Global Institute	Water Economics	#6 Kearney
Susan Burton	UNL Department of Agricultural Leadership, Education and Communication (ALEC)	Tapping Your Motivation to Serve	#6 Kearney
Gerald Mestl	Nebraska Game & Parks Commission	The Missouri River-Past, Present, Future	#6 Nebraska City
John Chapo	Lincoln Children's Zoo	Community Involvement and Leadership Opportunities	#6 Nebraska City
Mark Burbach	UNL SNR CSD	Personal Empowerment – Engaging Your Leadership Capacity	#6 Nebraska City
Mark Burbach	UNL SNR CSD	Post-Academy Leadership Assessment	#6 Nebraska City
Mark Burbach	UNL SNR CSD	Session Facilitation	All Sessions

Appendix II

Session Evaluations

Nebraska Water Leaders Academy

January 20 & 21, 2022
Lincoln, NE
15 Responses

Please provide two responses for each statement below. In the section labeled "BEFORE this Academy Session" circle the answer that best describes you BEFORE this session of the Water Leaders Academy.

Then, in the shaded section labeled "Now, at the END of this Academy Session" circle the answer that best describes you NOW that you finished this session of the Water Leaders Academy.

BEFORE this Academy Session						Now, at the END of this Academy Session					End Mean	% Change
Not at all	A little	Some what	Very Much	Completely		Not at all	A little	Some what	Very Much	Completely		
1(1)	2(6)	3(6)	4(2)	5	1) I understand how to communicate strategically with public audiences and stakeholders	1	2	3(6)	4(8)	5(1)	**3.67**	**41**
1(1)	2(6)	3(8)	4	5	2) I understand how applying my Strengths can affect my leadership	1	2	3	4(12)	5(3)	**4.20**	**70**
1(8)	2(4)	3(2)	4(1)	5	3) I understand Full Range Leadership	1	2	3(7)	4(5)	5(3)	**3.73**	**115**
1(4)	2(6)	3(5)	4	5	4) I understand Nebraska's water laws	1	2(1)	3(5)	4(8)	5(1)	**3.60**	**74**
1(5)	2(5)	3(4)	4(1)	5	5) I understand Nebraska's compacts and interstate obligations	1	2(1)	3(7)	4(6)	5(1)	**3.47**	**68**
1	2(2)	3(5)	4(8)	5	6) I understand the importance of agricultural and environmental sciences communication	1	2	3(3)	4(8)	5(4)	**4.07**	**20**
1(2)	2(4)	3(7)	4(2)	5	7) I understand Nebraska's geology	1	2	3(6)	4(8)	5(1)	**3.67**	**41**
1(1)	2(7)	3(5)	4(2)	5	8) I understand Nebraska's groundwater hydrology	1	2	3(6)	4(8)	5(1)	**3.67**	**45**
1(8)	2(3)	3(2)	4(2)	5	9) I understand the role of a boundary spanner in effective stakeholder engagement	1	2(1)	3(1)	4(10)	5(3)	**4.00**	**114**

(Please turn over)

10) What is Your Main Takeaway from the first session of the Nebraska Water Leaders Academy?

- My main takeaway is how this is going to change my life. I'm very excited to get started with this season of my life.
- Use my strengths to help me spread my knowledge
- Communication is key
- The water rights issues between states
- Water sources and water users are very diverse and face serious challenges. If we hope to maintain the resource for all we will need open, honest communication and leadership that is willing to explore innovative, cooperative solutions.
- Water is such a critical resource for our state, and we all can play a role in our different industries & representations to advocate for water. Focusing on our strengths & being prepared and knowledgeable about the diverse supply & issues with water will best prepare us.
- I don't know nearly as much about water in Nebraska as I thought I did last week. There is a complex web of politics governing water uses in this state and neighboring states.
- I understand much more about how my strengths & leadership tendancies (sic) impact my work & management style.
- That I have a lot more to learn.
- I found that the water law discussion to be veery interesting. I will take away a lot from that presentation pertaining to how the law works in Nebraska and I can apply that to my job as I deal with both irrigators and FERC on our hydroelectric project.
- I learned what my strengths are and how they can help me become a better leader. I got to meeting some rally interesting people. I learned more about water hydrology and geology of Nebraska.
- I look forward to continue to network with this group. It appears to be diverse in expertise so that will make this experience enjoyable traveling the state.
- There is nothing simple about the water resource – always challenging no matter your placement in society.
- I'm in the right job ☺
- I have a lot to learn about water issues in NE! But it's been great!

11) List one specific skill or concept that you learned during this session, and describe how you will apply it in your work.

- How to treat people that work under or for you.
- My 5 strengths are unique to me and I can nurture them to help me finetune them to help me further my career.
- Full Range Leadership – will keep these concepts in mind when dealing with subordinate employees.
- Using my strengths to help others.
- Boundary Spanning leadership seems like something that can be done no matter your place at the table. Practicing these skills or concepts on the small scale will be a major goal for me in the immediate future.

- I learned how to relate to others with different strengths than I have and how to build a cohesive team that can be extremely efficient.
- The top 5 strengths were a new concept to me. I'll certainly come away with a deeper understanding of the way I "tick", and how that may impact others in a work-group setting.
- The idea that everyone has strengths is helpful for my approach to management/leadership. I like that I can use the evaluation of my skills to look @ gaps in skill set that a new hire might fill.
- I learned about my strengths & will use them in how I work w/ others. I also learned that there's a lot of history behind my work & that we should prioritize engaging our stakeholders in that history.
- The concept of the Clifton Strengths was an eye opener for me. It taught me that everyone is not the same when it comes to how to deal with issues, etc. I will be more patient the next time when I work with a team on a project.
- I learned Harmony and it will be useful it getting people together and are their point of view.
- Continuing to further my knowledge on water law is valuable to broaden my knowledge base in that very complicated area.
- Boundary Spanner – never realized that his was an important concept to organizations or public meeting.
- The strengths info was really eye-opening and I will definitely be applying that info.
- I need to consider the strengths of individuals on my team when relating goals and working together.

12) Additional Ideas, Comments, Suggestions, or Questions.

- Really enjoyed this first session.
- Keep time.
- Some of the geology/law speaker seemed to assume a level of pre-existing knowledge that I don't have. Would have preferred an overview of the basics.
- Excellent foundational session to start the program with information in a variety of topics.
- One of my raters on the leadership survey mentioned that there should be a "N/A" options for some of the questions, specifically questions asking them to rate our knowledge of certain topics.
- More snacks/food ☺
- Loved it!
- Perhaps taking a break during a longer presentation.
- Good first sessions!
- On the leadership survey that was given to others, it may be helpful to add a N/A category. Folks that filled this out for me communicated they had no idea on some subjects, since they have never seen me function in that capacity of leadership.
- Disappointed that no lunch as served on day 2 especially since we had to stay until 2:00.
- Really great sessions and enjoyed the talks.
- Lunch on Friday would have been appreciated.

Nebraska Water Leaders Academy

March 24 & 25, 2022

Kearney, NE

15 Responses

Please provide two responses for each statement below. In the section labeled "BEFORE this Academy Session" circle the answer that best describes you BEFORE this session of the Water Leaders Academy.

Then, in the shaded section labeled "Now, at the END of this Academy Session" circle the answer that best describes you NOW that you finished this session of the Water Leaders Academy.

BEFORE this Academy Session						Now, at the END of this Academy Session					End Mean	% Change
Not at all	A little	Some what	Very Much	Completely		Not at all	A little	Some what	Very Much	Completely		
1	2(5)	3(9)	4(1)	5	1) I understand how to communicate across diverse perspectives.	1	2	3(2)	4(12)	5(1)	**3.93**	**44**
1(1)	2(7)	3(5)	4(2)	5	2) I am familiar with best practices and outcomes in collaborative approaches to water management.	1	2	3(4)	4(9)	5(2)	**3.87**	**53**
1(3)	2(5)	3(4)	4(3)	5	3) I understand issues surrounding the Platte/Republican interface.	1(1)	2(4)	3(5)	4(5)	5	**2.93**	**19**
1	2(3)	3(5)	4(6)	5(1)	4) I understand the beauty, diversity, and ecology of the Platte River and Sandhills of central Nebraska	1	2	3(1)	4(9)	5(5)	**4.27**	**28**
1(1)	2(4)	3(8)	4(2)	5	5) I can recognize and apply boundary spanner skills in collaborative resource management.	1	2	3(4)	4(9)	5(2)	**3.87**	**41**
1(6)	2(6)	3(2)	4(1)	5	6) I understand water efficiency technology deployed on the Paulman farm.	1(1)	2(2)	3(5)	4(6)	5(1)	**3.00**	**61**
1	2(8)	3(5)	4(2)	5	7) I understand Nebraska's climate and weather.	1	2(1)	3(4)	4(9)	5(1)	**3.67**	**41**
1(5)	2(5)	3(4)	4(1)	5	8) I understand NDEE programs related to modern production ag.	1	2(2)	3(4)	4(8)	5(1)	**3.53**	**71**

(Please turn over)

9) What is Your Main Takeaway from this session of the Nebraska Water Leaders Academy?

- To encourage sharing of opposing opinions. Conflict encourages new ideas and can allow trust.
- Water uses vary tremendously in different parts of the state. Looking forward to future sessions to see other areas.
- To keep stakeholders engaged you have to be vigilant, open-minded, and be willing to meet them where they are.
- Approaching different stakeholders requires leadership mindset as well as skills to connect to others and drive outcomes.
- My main take away is there are several different technologies and ways to aid in water management. There are different boundary spanner skills that can be used to aid in collaborative management.
- Listening & hearing different perspectives is both vital for the future of water & does not mean you have to compromise your own positions
- The fact that everything we talked & learned about this session ties together. Weather has a big factor in water availability, which determines amount of irrigation. Will be used and your rate of return for farming. Then with farming and agricultural practices, comes the increased risk of contaminants.
- Get an elevator pitch
- Farming is complex
- I learned a lot about science communication w/ Cody talking about the cranes, w/ Wes's talk about collaboration, & w/ Mary's talk about her photographing project.
- The importance of stakeholders and how to get them on the same path
- Effective ways of science communication
- Farming is very complex
- NE has awesome resources in timelapse photography to build some trends for land management
- People likely use multiple levels of boundary spanner skills at the same time
- Meet people where they're at – this concept was reinforced in Jodi and Roric's presentations.
- Thoughts on stakeholder engagement, diversity, inclusion, and how to better communicate science.

10) List one specific skill or concept that you learned during this session, and describe how you will apply it in your work.

- Same as above – I sometimes avoid discomfort of opposing ideas which is unfair when leading a team.
- I learned more about all the available water statistics available to producers & the challenge to present it to them in a simple manner.
- Same as above. Sometimes we're just "checking the box" with stakeholders and we can do better.
- I learned to innovate with clarity from Roric, and for my role in ag technology it is critical to use effective communication in my day to day to connect with farmers.
- Time is valuable to farmers and when meeting with them you need to get the most out of their time and listen to them.
- Celebrating and encouraging the unique perspective individuals bring to a group and providing them the opportunity to share that perspective are critical to solving new problems

- During the bridging boundaries lesson, I learned different approaches & techniques to use when talking with different types of people such as farmers and regulators.
- I will work on an elevator pitch
- Practice better communication
- I think, just as much as last time, I learned how many people's work really intersects w/ mine, & how much more I have to learn.
- How to be a boundary spanning
- Learned how to look at all sides to understand different viewpoints.
- Love new technology interests that are available to public – such as time lapse photography – might be nice to utilize at reservoirs, camp ground, inlets to show changes over time.
- Communication is a pet-peeve so I am always striving to improve techniques and abilities
- Utilize the clearinghouse.nebraska.com
- Avoid talking about global climate change when talking w/ conservative audiences. Another example of meeting people where they're @ and making issues locally relevant.
- I'm really interested in Mary Harner's work and how I can incorporate multimedia into our work.

11) Additional Ideas, Comments, Suggestions, or Questions.

- Getting the 5 local water managers together was wonderful, but I wish it would have been about water not leadership. To get that group together is rare, so I think we should have taken advantage of their knowledge to share with our group. Especially in this area, very few of us understand their organizations so it was a shame we didn't get to hear from them. More water topics are important, we can get leadership training anywhere, but learning about water has fewer opportunities. I suggest we have water experts in each session relevant to location. The topic on agenda didn't match what was talked about.
- It would be interesting to learn more about the Platte River and impacts to the central part of the state.
- It would be nice to have listened more about water from the Platte/Republican Interface.
- -Making sure we stay on time according to schedule
- 13 hours is a very long day
- I REALLY want to hear from farmers, and their perspective on water quality & quantity issues & their willingness to change & implement BMPs. I did not get a lot from Rorik's talk, however.
- It was great
- If have a panel again talk a little about what they do.
- Diversify – especially the panel. Really enjoyed the crane viewing and the group dinners. The climate speaker needed to simplify concepts a bit. It was pretty complex, even for someone w/ some climate background. That said, I'm really glad to see this topic included and I definitely learned from him.
- Was a bit disappointed with lack of diversity of the panel discussion – especially after Gina's talk.

Nebraska Water Leaders Academy

May 12-13, 2022

Omaha, NE

14/15 Responses

Please provide two responses for each statement below. In the section labeled "BEFORE this Academy Session" circle the answer that best describes you BEFORE this session of the Water Leaders Academy.

Then, in the shaded section labeled "Now, at the END of this Academy Session" circle the answer that best describes you NOW that you finished this session of the Water Leaders Academy.

BEFORE this Academy Session						**Now, at the END of this Academy Session**					**End Mean**	**% Change**
Not at all	A little	Some what	Very Much	Completely		Not at all	A little	Some what	Very Much	Completely		
1(10)	2(4)	3	4	5	1) I understand Omaha's CSO Program	1	2(1)	3(9)	4(4)	5	**3.21**	**150**
1(5)	2(8)	3(1)	4	5	2) I understand Papio-Missouri NRD flood control projects in the Omaha metro area	1	2(1)	3(8)	4(4)	5(1)	**3.36**	**96**
1(9)	2(4)	3(1)	4	5	3) I understand Metropolitan Utilities District (MUD) water and wastewater treatment projects in Omaha	1	2(2)	3(5)	4(6)	5(1)	**3.43**	**140**
1(1)	2(6)	3(6)	4(1)	5(1)	4) I understand the relationship btn water, climate, and health	1	2	3(4)	4(8)	5(3)	**3.93**	**48**
1(1)	2(8)	3(5)	4(1)	5(0)	5) I understand how to lead innovation for personal and organizational change	1	2(1)	3(5)	4(9)	5	**3.53**	**47**
1(2)	2(9)	3(2)	4(1)	5(1)	6) I understand Integrated Water Resource Management in Nebraska, bringing together prior appropriation and correlative water rights	1	2(1)	3(8)	4(3)	5(3)	**3.40**	**46**
1(4)	2(6)	3(2)	4(2)	5(1)	7) I understand Nebraska water well standards and waste water rules	1	2	3(7)	4(7)	5(1)	**3.60**	**54**
1(1)	2(10)	3(2)	4(2)	5	8) I understand risk communication	1	2	3(4)	4(9)	5(2)	**3.87**	**66**

(Please turn over)

9) What is <u>Your Main Takeaway</u> from this session of the Nebraska Water Leaders Academy?

- To be honest, I've spent a lot of energy downplaying my job in my mind. It's just starting to click how important water, & water issues are. I'm final starting to emotionally engage in the work I do, & the work everyone here does.
- It was interesting for me to better understand water in urban setting and the interconnected systems in place
- My main takeaways are related to the risk communication presentations, such as
  1. You have to make the audience part of the solution.
  2. Need to understand that the benefit you're telling the audience about will come @ a real or perceived cost to someone.
  3. Goal = Trust + Credibility
- Just because drinking water is within EPA standards doesn't mean it's "safe". There's a lot of potential effects we don't fully understand yet.
- Water management in Omaha is a hugely complicated undertaking.
- I didn't realize how complex and how much of a problem it is for wastewater in Omaha. I now have a better understanding of how wastewater treatment works.
- The complexity of water treatment in the Omaha area.
- Communication is very important
- The importance of the water & wastewater treatment facilities – and how crucial the people in those roles are. Also how interesting and intricate waste treatment systems are in general.
- *Coordination is key to working through water issues
  *Continued funding is needed to assist in management issues
  *Good communication
- There is optimism to be found regarding our challenging future.
- It costs a lot of to keep the taps working.
- Going on the tour in Omaha was fascinating. I had no idea of all that goes into water in a large city, so it was very valuable.
- CSO – combined sewage overall → never knew this was occurring → all the activities that goes into waste-water & and drinking water system

10) List one specific skill or concept that you learned during this session, and describe how you will apply it in your work.

- I learned a lot about wastewater, especially in Omaha, how its' connected to storm water & how susceptible those systems are to flooding. I also learned that the treatment plant there is required to treat their wastewater before it's discharged during the summer months to protect public health. This helps me tie everything together – think of systems as a whole.
- How to effectively use risk communications
- I enjoyed the Integrated Water Resource Mgmt. presentation. This was useful context that I did not have prior.

- Risk communication and effective science communication go hand in hand. This is going to change the way I approach my technical presentations at public meeting.
- Bridging the gaps between realism and optimism.
- I have a better knowledge of applying leadership skills like a futurist. I hope to share this concept with others and use it with water related issues.
- Look more towards the future and to shoot big because even if you don't complete the whole task parts of it they are still a success. Perception is important.
- Being optimistic can change a lot!
- At every session I'm thinking about how I can improve my specific programs – integrating more social science/leadership/progressive methods into the planning and outreach parts of my job. I think the futurist part of this session pushed me to just dive in – maybe I should be more bold in a how I'm facilitating stakeholder/agency collaboration.
- Future → look forward in your daily work for the near and long term.
- I learned that the value of having at least one futurist on my team! Will be looking for ways to get a futurist on my board of directors.
- I will be using risk communication skills as we continue to move forward with major talks involving our district.
- Risk communication – excellent to hear this again in a different term -

11) Additional Ideas, Comments, Suggestions, or Questions.

- Jesse is awesome.
- Jennifer did a great job of speaking in layman's terms. It was really nice having a bus for the field trips. I like all the snacks. ☺ Risk communication speaker was very good.
- The field trips were great!
- For tours in the wastewater treatment facility – consider hearing problems and/or another method for talking (headphones/mic/etc.) couldn't hear most of it. For water wells talk – into on basic well construction is possibly the most interesting part → could incorporate this in future. How are wells sites, constructed, maintained, etc. – also could be a good demo/tour opportunity. Drilling/wells are way more interesting and understandable in person.
- Loved the risk communication session

Nebraska Water Leaders Academy

July 14 & 15, 2022
Scottsbluff, NE
12 responses

Please provide two responses for each statement below. In the section labeled "BEFORE this Academy Session" circle the answer that best describes you BEFORE this session of the Water Leaders Academy.

Then, in the shaded section labeled "Now, at the END of this Academy Session" circle the answer that best describes you NOW that you finished this session of the Water Leaders Academy.

BEFORE this Academy Session						Now, at the END of this Academy Session					End Mean	% Change
Not at all	A little	Some what	Very Much	Completely		Not at all	A little	Some what	Very Much	Completely		
1(6)	2(3)	3(2)	4(1)	5	1) I understand the community capitals framework.	1	2(1)	3(4)	4(5)	5(2)	**3.67**	**100**
1(3)	2(5)	3(2)	4(1)	5	2) I understand how I can use my civic capacity to influence my community.	1	2	3(4)	4(7)	5(1)	**3.75**	**96**
1(3)	2(5)	3(3)	4(1)	5	3) I understand the history of Nebraska's irrigation and public power districts	1	2	3(3)	4(7)	5(2)	**3.92**	**81**
1(5)	2(4)	3(3)	4	5	4) I understand the development of the integrated water system in the North Platte River Basin.	1	2	3(5)	4(6)	5(1)	**3.67**	**100**
1(4)	2(6)	3(1)	4(1)	5	5) I understand water markets.	1	2(2)	3(4)	4(5)	5(1)	**3.42**	**78**
1(2)	2(5)	3(3)	4(2)	5	6) I understand the history of the NRD system.	1	2	3(2)	4(10)	5	**3.83**	**59**
1(4)	2(6)	3(1)	4(1)	5	7) I understand current NRD programs and projects in the Panhandle.	1	2	3(5)	4(6)	5(1)	**3.67**	**91**
1(8)	2(2)	3(1)	4	5(1)	8 I understand modeling projects that Thad Kuntz & Adaptive Resources have been involved with in the Panhandle.	1	2(1)	3(6)	4(3)	5(2)	**3.50**	**110**

(Please turn over…)

9) What is Your Main Takeaway from the first session of the Nebraska Water Leaders Academy?

- Western Nebraska is way different than eastern NE in water
- The diversity of resources in our state is incredible looking across water, but also all natural resources. We have a huge opportunity to preserve & utilize these resources.
- Water entering the state has to follow many rules & regulations. It was fascinating to learn the history behind the compact & how they are measured.
- The history behind water rights from Wyoming to NE, & how agriculture use impacts water flow & quantity.
- How important the irrigation canals are here.
- I did not have a clear understanding of the panhandle area or irrigation, and I enjoyed learning about these topics. My main takeaway is a general understanding of the irrigation districts, infrastructure, and processes.
- How important irrigation is and how much it can have an impact on a community.
- Surface water based irrigation is the main reason this part of the country was ever settled.
- Main takeaway → The (?) difference in water management between eastern vs. western NE
- How important of the river compact to that of the ag people

10) List one specific skill or concept that you learned during this session, and describe how you will apply it in your work.

- How to use my civic capacity!
- I enjoyed learning about civic capacity & how to use skills to influence my community on a variety of projects.
- I'm encouraged to get more civically involved, trying to get on local boards or volunteer with organizations in the community. It will be a good way to make more important contacts.
- I'm definitely going to talk about what I've learned this session w/ my colleagues. I think having as much knowledge as possible about the history & uses of water in NE help us all do our jobs more thoughtfully & efficiently.
- How to engage the community.
- The community capitals framework will help me as I perform my job duties related to community engagement. Really liked Mike's presentation N. Platte Basin water system.
- How irrigation water rights work in the state of Nebraska and I will apply it to my work as a I deal with our existing and new irrigators on our canal system.
- Community Capital – and the public participation spectrum. The "Promise to the Public" especially I think will be applicable to the public meetings and open houses we host.
- I'll be able to apply knowledge of western NRD programs and water management when engaging with partners in that part of the state.

- A better understanding of the roles of NRD – to have a better relationship with that organization
- How to use the resources of the water leaders

11) Additional Ideas, Comments, Suggestions, or Questions.

- Great session & field trip!
- The tour was very good & had great historical context provided by our guide. I believe this was a great experience for us all, especially those from eastern part of the state that have not experienced this
- A/C on the bus ☺
- Good get together
- It seems like it always takes a while to start each session because of technology issues. Perhaps test the system the night before?
- Mentioned this before, but lunch should be included if we go beyond noon on Friday.

Nebraska Water Leaders Academy

September 15-16, 2022

Valentine, NE

13 responses

Please provide two responses for each statement below. In the section labeled "BEFORE this Academy Session" circle the answer that best describes you BEFORE this session of the Water Leaders Academy.

Then, in the shaded section labeled "Now, at the END of this Academy Session" circle the answer that best describes you NOW that you finished this session of the Water Leaders Academy.

BEFORE this Academy Session						Now, at the END of this Academy Session					End Mean	% Change
Not at all	A little	Some what	Very Much	Completely		Not at all	A little	Some what	Very Much	Completely		
1	2(5)	3(4)	4(4)	5	1) I understand NRD public and youth education.	1	2	3(2)	4(10)	5(1)	**3.92**	**34**
1(6)	2(4)	3(2)	4(1)	5	2) I understand management issues associated with Niobrara River stakeholders (panel discussion)	1	2	3(9)	4(4)	5	**3.31**	**79**
1(7)	2(5)	3(1)	4	5	3) I understand Natural Resources Commission-Funding programs	1	2	3(8)	4(5)	5	**3.38**	**120**
1(3)	2(3)	3(7)	4	5	4) I understand the unique ecosystem of the middle Niobrara River and associated 'Outstanding Remarkable Values'	1	2	3(2)	4(9)	5(2)	**4.00**	**73**
1(6)	2(4)	3(2)	4(1)	5	5) I understand the Niobrara River Valley Geology	1	2	3(6)	4(7)	5	**3.54**	**92**
1(2)	2(4)	3(7)	4	5	6) I understand water-related tourism in the Middle Niobrara River Region	1	2	3(4)	4(8)	5(1)	**3.77**	**58**
1(4)	2(3)	3(2)	4(3)	5(1)	7) I understand the Nebraska Wellhead Protection Program	1	2	3(3)	4(9)	5(1)	**3.85**	**52**
1(6)	2(1)	3(5)	4(1)	5	8) I understand the Bazile Groundwater Management Area Project (panel discussion)	1	2	3(4)	4(9)	5	**3.69**	**78**

(Please turn over)

9) What is Your Main Takeaway from this session of the Nebraska Water Leaders Academy?

- How impactful a river can be for both ecological, tourism, environmental and the local economy.
- The geology & uniqueness of the Niobrara River Valley.
- Collaboration takes time but makes a difference
- I'm pretty conflicted about tourism. I see the need for it to maintain the community, but in my opinion it's more important to maintain nature & diversity than it is to support economies in the area. Golf is a big thing here it seems like to draw people in, & golf courses use a ton of water to maintain the greens. I suppose there's compromise to everything.
- Ecotourism can give life and challenges to rural communities
- Appreciation of Nebraska's natural resources and tourism opportunities starts by educating people in your immediate area
- The main takeaway is that the Niobrara is a very important resource for the area and the industries that it impacts from tourism to agriculture. There are many agencies that work collaboratively to manage the river and all must try to work together for the best of the river.
- Niobrara Valley is so unique to the state. It was very valuable to get the group to experience it.
- Importance of water resources for recreation & tourism economy
- Water Resources have many unique reasons of use and recreation aspect can be a very passionate draw for people – have a great impact on a person well-being - and be a very one-sided mental fight when viewed with other uses such as irrigations, municipalities, and environmental
- PARTNERSHIPS/COLLABORATION IS EVERYTHING
- Managing the Niobrara is very complex. There are many competing interests and the Park Service is limited in the scope & scale of what they can do to preserve the ORVs.
- My main takeaways relate to the geology of the area. Sue's presentation was very accessible to a lay audience and it was really useful to see the geologic formations in person, on the river.

10) List one specific skill or concept that you learned during this session, and describe how you will apply it in your work.

- The Niobrara River Valley panel taught me that it takes many different entities to come together with a common goal to work together if anything is going to get accomplished. I will use this concept to better plan our projects and work by getting everyone together that is involved early on in the process on the same page.
- The different env. funding options
- patience is key!

- I think mostly just considering how geology impacts G.W. quality w/ the leeching of contaminants. It gives me a new perspective on protecting our aquifers.
- Info on the Wellhead Protection program was great! Interested to become involved in the conversation about this in my community.
- I learned that you must get along well with other entities for the good of all. I will apply this in my work when working with producers and trying to present information to them.
- I appreciated hearing of all the available funds and hope to apply for some with my company.
- Water resource is not bound to the creek boundary – it is not bound to today's time – it spans many generations, ages, and must be evaluated, considered in a larger context across a greater landscape –
- I WANT TO PARTNER MORE W/ NARD I & E
- NRDs have a lot of in-house resources for I & E/Public Outreach that are not fully taken advantage of. Should consider using these existing resources at our future public meetings.
- It doesn't apply to my work, but I loved learning about how the geology of the areas creates waterfalls as well as the explanation of micro climates (paper birch).

11) Additional Ideas, Comments, Suggestions, or Questions.

- 3 panel session – Needs an overview of what the topic is – map of Niobrara Valley – maybe ownership pattern – What is the purpose of the Niobrara Council – do they have influence in the management of the Niobrara Valley –
  → Tribal connection of the Niobrara - I would think a tribal perspective of the water resource may have a slightly different aspect than those presented.
  I'm totally grateful for all the work that the coordinators have put in to make this (and all) session a success.
  Thank you for the information sharing, snacks, meals, adventures
- IDEAS: it would be great if WL students could ask panel members questions to be moderated by Scott, vs having questions lined up already – &? have a mix
- I would allow for open Q & A on the Niobrara panel – I think people would have liked to ask questions.
  Really enjoyed the float & the stops along the way

Nebraska Water Leaders Academy

November 17-18, 2022

Nebraska City, NE **(14 returned)**

Please provide two responses for each statement below. In the sections labeled "BEFORE this Academy Session" and "BEFORE the Academy" circle the answer that best describes you BEFORE you participated in this session of the Academy and the Water Leaders Academy. Then, in the sections labeled "Now, at the END of the Academy Session" and "Now, at the END of this Academy" circle the answer that best describes you NOW that we have finished this session and the entire Academy.

Congratulations on your accomplishment!

BEFORE this Academy Session						**Now, at the END of this Academy Session**					**End Mean**	**% Change**
Not at all	A little	Some what	Very Much	Completely		Not at all	A little	Some what	Very Much	Completely		
1	2(6)	3(7)	4(1)	5	1) I understand how to get involved with or serve on public boards or service org's	1	2	3(3)	4(11)	5	**3.79**	**43**
1(1)	2(4)	3(9)	4	5	2) I understand how to be a curious leader	1	2	3(1)	4(10)	5(3)	**4.14**	**61**
1(3)	2(4)	3(4)	4(2)	5	3) I understand how Nebraska's water policy compares to other regions	1	2	3(3)	4(10)	5(1)	**3.86**	**74**
1(1)	2(9)	3(4)	4	5	4) I understand how to tap my motivation to serve on public boards or service org's	1	2	3(9)	4(4)	5(1)	**3.43**	**55**
1(5)	2(6)	3(3)	4	5	5) I understand Missouri River management past, present, and future	1	2(1)	3(2)	4(9)	5(2)	**3.86**	**108**
1	2(5)	3(8)	4(1)	5	6) I understand how to get involved in community leadership opportunities	1	2	3(3)	4(8)	5(3)	**4.00**	**47**
BEFORE the Academy						**Now, at the END of the Academy**						
1(3)	2(6)	3(4)	491)	5	7) I use my boundary spanner skills in collaborative endeavors	1	2(1)	3(4)	4(8)	5(1)	**3.64**	**65**
1(2)	2(5)	3(7)	4	5	8) I practice transformational leadership in my life	1	2	3(4)	4(8)	5(2)	**3.86**	**64**
1	2(3)	3(8)	4(3)	5	9) I can participate well in conversations that include differing perspectives or viewpoints	1	2	3(2)	4(8)	5(4)	**4.14**	**38**
1	2(4)	3(7)	4(3)	5	10) I can lead personal or organizational innovation	1	2	3(2)	4(10)	5(2)	**4.00**	**37**
1(2)	2(6)	3(2)	4(5)	5	11) I am involved in water policy issues	1	2(3)	3	4(9)	5(2)	**3.93**	**38**
1(2)	2(6)	3(2)	4(4)	5	12) I am a water leader	1	2	3(2)	4(6)	5(6)	**4.29**	**67**

(Please turn over)

13) What is Your Main Takeaway from this session?

- I think I always been a curious leader, just never defined myself as one
- Gerald's presentation on the Missouri River was great! It was a great example of how good-intentioned decisions can have long-term consequences.
- Development of the Missouri River for economic purposes has led to increased flooding and harmed the ecosystem.
- My favorite presentation this session was on the Missouri River. Learning the history, impacts, and current state was extremely interesting, but I also thought was a nice segway transitioning into water leaders, learning from the past to inform the future.
- For me, it was eye opening to see how different states like Kansas and Texas handle their water policies & regulations. We are fortunate to live in a state where we have policies in place that seem to be working when compared to other states.
- Be curious! The past is important. Find your motivation
- The uniqueness of Nebraska, our policys (sic), NRD districts, & issues we have in the state. Also the connections with different people is amazing.
- The importance of staying up on what is going on in Nebraska water. To stay focus on goals of my job
- Missouri River is very complex system that needs attention from several areas to maintain flow control & it is a very costly project.
- Never lose your drive to explore new options, hear new perspectives, and seek solutions
- I really enjoyed Brooke's presentation on curiosity and wanted to make sure I incorporate these principles of curious leadership as I mentor others (knowingly or unknowingly). I think it's so important to ensure that you're using these skills to empower others.
- This session provided a good recap of the leadership skills learned throughout the year.
- The panel that presented during this session was amazing and highly recommend them in the future.

14) List one specific skill or concept that you learned during this session, and describe how you will apply it in your life/work.

- Understanding what motivates me
- I am determined to make time to be curious and to pursue curiosity! Work and life and duty often overshadow the time and effort it takes to be curious. I want to spend more energy being curious and encouraging others to be, also.
- I like the take of analyzing what motivates you to do certain activities. I'd leverage this concept to help stay motivated and complete tasks, both at work and home.
- Understanding the impact of curiosity, and how leaders should be more curious. I will use this daily to continue to ask more questions & learn more.
- The concept of being a "curious" leader. I will use what I learned in the session to better lead through the concepts of curiosity.
- there are a lot of ways people are motivated
  -I can be my own motivation
- How to communicate clearly without offending others with my opinion

- How to be an effective leader, to not be closed minded and understand the need of others
- Water policy differs from state to state. It is important for me to be able to brag about how Nebraska has been successful managing the aquafir (sic), but needs to continue the good work
- To embrace curiosity to better yourself as a person and as a leader
- I know this wasn't a concept that was emphasized, but I realized that after the Missouri River presentation (which was very informative), I was left wondering what the solution were, what could possibly be done, and what hope exists. I think it's important to let folks know what options exist to remedy our biggest water issues. That's something I want to make sure to do in my own talks.
- The human activity can alter the characteristics of a river, including flood potential. As someone who works in climate change, this is yet another example of how human activity degredation (sic) of nature puts people and property at risk.
- I learned how to be a more motivated & curious leader.

15) What is Your Main Takeaway from the overall Nebraska Water Leaders Academy?

- Water resources is a very dynamic - ever changing resource that we need to be more vigilant for the future sustainability of the resource
- There are a lot of talented, energetic people working on water issues in Nebraska. Water leaders gives me hope for the future of the state and reminds me that I need to be a part of the discussion.
- Nebraska has a wide array of water-related issues, but they are not insurmountable. Agency cooperation is going to be the key to continued success – and that will require massive education/outreach efforts towards people who care about these issues.
- I am a much more rounded leader for water in Nebraska following the program. The opportunity we have for our state and resources is immense.
- Making the connections from the Academy is just as important as the material learned from the Academy.
- More people care about water than I thought. I am a leader
- Understanding NE policy, issues, & uniqueness.
- The importance of our role in the future of the Quality & Quantity of Nebraska water problems
- It is important for groups like this to continue. I've learned the water community is small, & unfortunately that leaders are getting older. We need people to oak up their knowledge so eventually they can take over & continue to protect Nebraska's water.
- That water is a multidisplinary issue that a lot of different organizations are trying to tackle. More communication and cooperation is (sic) completely necessary in order to meet our goals and ensure the future of safe, clean, plentiful water
- The people I've met and the connections I've made through the Academy has been such a great benefit to my work, along with the information from the subject matter experts, which was very good
- I have not thought of myself as a leader, but the Academy has helped me identify my intrinsic leadership skills, eg. honesty, curiosity etc. I will consider myself a capable leader moving forward.

16) Suggestions to the Academy for Future Consideration (i.e. topics, presenters, activities, information to share, etc.)?

- Love all the speakers and enthusiasm of the presenters
- More presentation on wetlands/habitat/wildlife.

- I'm conflicted about the group project assignment. Totally understand why the topics were chosen, but feel like the topic we were given didn't apply enough to my interests to make me fully engaged. I would have enjoyed the opportunity to choose a project that I could apply to my work.
- Need snacks throughout the day to stay engaged. For panel discussion – consider getting some more outsider viewpoints and/or younger more up and coming professionals who are going to deal with these issues for the next 40 yrs. This has been a fantastic experience full of great people, I'd love to do it every 3-5 years and I know nearly all of us have expressing interest in some form of alumni activity. Easier said than done of course. Thanks for everything.
- I really enjoyed the Academy & opportunity to join again – thank you for all of your hard work and organization Scott, Jason, Mark, Lee, & Brooke!
- It would be great to have a session for the alumni. Even if it is for one day, it will give the chance for former water leaders students to come share their experiences post Water Leaders Academy. Consider a presentation on hydropower.
- I loved Kate in the panel! need more fresh faces & perspectives for speakers
- Alumni meeting. Topic – wetlands & their importance to the state.
- This is a really great thing. I'm not sure how you could improve it. I got a lot out of this. Thanks and keep it up.
- Continue to use multiple sites across the state. It is crucial for people in the eastern part of the state to understand & see how it works & appreciate all the infrastructure out there. With such a diverse group with different policies, showing all sides of the story might not apply to everyone, but hey need to learn about it to appreciate both sides.
- Kate Bolz might have been the best panelist/conversation of the entire and more presenters like her would be beneficial. Overall I thought adding more diverse perspectives would be hugely valuable such as inviting Native American voices. The older, white male perspective is well represented and shifting to diverse perspectives would only improve the Academy's ability to spark new ideas and partnerships.
- I know you've been trying, but keep trying to get indigenous voices on water in the state.
    - info from UNMC WCHP
    - emerging contaminants (EPA)
- A couple of more scientific presentation were right high-level jargon-heavy. May want to remind speakers that participants may have little to no background knowledge.

  <u>A couple panel or presentation ideas:</u>
  -Indigenous perspectives on water
  -Regenerative agriculture
  -One Health → interconnection btwn people, animals, plants & shared environment
  -Dan Snow, UNL nitrate origin research