

Evaluating an Agriculture and Natural Resources Leadership Development Program Utilizing the CIPP Model

L. Greenhaw¹, R. Biderman²

Abstract

The purpose of this study was to explore the utility of the Context, Input, Process, and Product (CIPP) model to evaluate agriculture and natural resources (ANR) leadership development programs (LDP). We evaluated Washington AgForestry Leadership Program, one of over 50 similarly structured ANR LDPs around the world, and used the CIPP model to determine the extent to which the leadership program is meeting both the current and future needs and expectations of stakeholders. We found the CIPP model to be an appropriate and adequate evaluation framework that resulted in robust data collection and analysis, leading to meaningful recommendations for Washington AgForestry. Overall, stakeholders support the current content and structure of the program and find it to be fulfilling the stated mission. Simultaneously, areas for immediate improvement, future growth, and longevity were noted. We recommend that other ANR LDPs conduct robust program evaluations using the CIPP model. Applying a consistent evaluation process to similarly structured ANR LDPs would build a valuable knowledge base of outcomes, impacts, and potential needs of such programs. Minimally, programs should develop and implement regular formative and summative evaluations to better understand and document program outcomes and impacts. Program directors should utilize evaluation data to continually improve their programs.

Article History



Received: March 19, 2025

Accepted: August 4, 2025

Published: August 22, 2025

Keywords

leaders; SDG 4: Quality Education; adult education; outcomes; stakeholders

-
1. Laura Greenhaw, Assistant Professor, University of Florida, 219 Rolfs Halls, PO Box 110540, Gainesville, FL, 32611, laura.greenhaw@ufl.edu,  <https://orcid.org/0000-0002-1562-9798>
 2. Rachel Biderman, PhD Candidate, University of Florida, PO Box 110540, Gainesville, FL 32611, rbiderman@ufl.edu,  <https://orcid.org/0009-0001-9738-5896>

Introduction and Problem Statement

“Leadership is a highly sought-after and highly valued commodity” (Northouse, 2022, pg. 1). Agriculture and natural resources (ANR) leadership development programs (LDPs) provide non-formal education to help build leadership capacity (Dunbar, 2022). ANR LDPs have existed since the 1960’s, beginning with the Kellogg Farmers Study Program administered by Michigan State University (W.K. Kellogg Foundation, 2000). Similar leadership development programs, specifically those in the International Association for Programs of Agricultural Leadership (IAPAL), span the globe and have over 25,000 alumni (Dunbar, 2022). However, limited research has been published on these programs’ outcomes. Program evaluations published to date report ANR LDPs enhance participants’ leadership knowledge, skills, networks and social capital, although continued rigorous evaluation of programs has been recommended (Carter & Rudd, 2000; Lamm & Carter, 2019; Lamm et al., 2016; Madsen et al., 2014; W.K. Kellogg Foundation, 2000). Moreover, most LDP evaluations focus on participant outcomes (Wallace et al., 2021) and neglect assessing program relevance within the broader context of the ANR industry. Furthermore, given that IAPAL member programs use similar program design and delivery methods and routinely share resources and information, an opportunity exists to strengthen the collective knowledge base by applying a consistent program evaluation approach. Therefore, we evaluated IAPAL member program, Washington AgForestry, using the Context, Input, Process, and Product (CIPP) model to explore its utility as an evaluation framework for ANR LDPs, especially IAPAL member programs. Additionally, we sought to determine Washington AgForestry’s current relevance and potential future needs. Our use of the CIPP framework may guide evaluation of similar ANR leadership development programs. Moreover, our findings may inform facilitators’ or administrators’ decision-making for similar ANR LDPs.

Theoretical and Conceptual Framework

We used the Context, Input, Process, and Product (CIPP) model, developed by Daniel Stufflebeam in 1960 to frame this evaluation. “The CIPP approach is based on the view that the most important purpose of evaluation is not to prove but to improve” (Stufflebeam, 1983, p. 118). Information is systematically collected to identify program strengths and areas of growth. One benefit of the model is its broad application. Methodological decisions can be made based on what the program and evaluation teams want to know. Uniquely, the model “guides both the evaluators and stakeholders in posing relevant questions and conducting assessments at the beginning of a project (context and input evaluation), while it is in progress (input and process evaluation), and at its end (product evaluation)” (Zhang et al., 2011, p. 59). CIPP was originally designed to assess efficacy of inner-city school reform projects but has been applied to a wide variety of contexts from education to military personnel review and more (Stufflebeam, 2003).

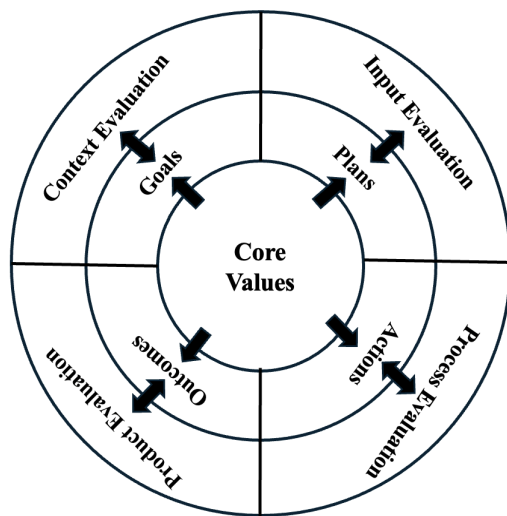
The CIPP model is a comprehensive framework that guides formative and summative evaluation of four concepts as denoted by the acronym: context, inputs, processes, and products (Stufflebeam, 2003). *Context evaluation* assesses program goals through research on

program background, resources, and needs. It allows a broader group of stakeholders to weigh in on program priorities and objectives. This stage helps shape the direction of the overall evaluation. *Input evaluation* is aptly named, as it targets the inputs of a program with an aim to help assess alternative or competing approaches, staffing and budget plans and other inputs that should be considered when determining cost-effectiveness. *Process evaluation* assesses the activities and implementation of the program, to identify what changes need to be addressed. Finally, *product evaluation* focuses on program outcomes and how effectively needs are being met. Product evaluation includes intended and unintended, as well as short- and long-term outcomes, and is comprised of four subparts: impact, effectiveness, sustainability, and transportability. Transportability asks whether the processes that produced desirable outcomes were found to be transportable and adaptable for effective use in other settings (Stufflebeam, 2003). This is of particular importance given the similarities of ANR LDPs, especially those in IAPAL.

A reciprocal relationship exists between each type of evaluation - *context, input, process, and product*- and four evaluative foci: goals, plans, actions, and outcomes, respectively (Stufflebeam, 2003). Each foci, and subsequently each type of evaluation, is grounded in the core values of the program being evaluated (see Figure 1). Accordingly, programs seeking to set, validate or improve goals engage in context evaluation. Planning improvement efforts raise input evaluation questions and input evaluation should, in turn, provide an assessment of program plans and direction for improving plans. Process evaluation is prompted by program actions and accordingly provides feedback on program activities. Outcomes necessitate product evaluation, which correspondingly provides judgements of results being achieved by the program. All of this, then, emanates from the program's core values, as seen in Figure 1 (Stufflebeam, 2003).

Figure 1

Key components of the CIPP Evaluation Model, recreated from Stufflebeam (2003)



Purpose

The purpose of this study was to explore the utility of the Context, Input, Process, and Product (CIPP) model to evaluate agriculture and natural resources (ANR) leadership development programs (LDPs). We systematically evaluated the Washington AgForestry Leadership Program to inform program administrators' decision-making. Washington AgForestry, an active member of IAPAL, is an experiential leadership learning program for adults working in agriculture, forestry, and other natural resource-based businesses in Washington. The following questions guided this study:

1. Does the CIPP model provide a useful framework to evaluate ANR LDPs?
2. To what extent are the goals, plans, actions, and outcomes of Washington AgForestry meeting the current and future needs and expectations of stakeholders?

Methods

The Washington AgForestry evaluation was a multi-phase process, involving multiple data sources and collection points. Throughout the process, researchers reflected on the utility of the CIPP model as a framework for ANR LDP evaluation. The University of Florida's Institutional Review Board (IRB) approved the research protocol and all participants in all phases were provided informed consent. Context and input evaluation was conducted with the program administrative team consisting of three members directly responsible for administering Washington AgForestry and the executive director of the Agriculture and Forestry Education Foundation that houses the leadership program. This provided the evaluation team a thorough understanding of program goals and the planned administration of the program. Process and product evaluation included three data points collected from two groups of participants. First, program perceptions were collected from purposefully selected stakeholders. Stakeholders represented varying relationships with Washington AgForestry and thus, varying perspectives. Examples include program donors, current and past program participants' employers, program alumni, program Board of Directors members, and representatives of ANR organizations. Participants represented different parts of the state and varying industry interests. An electronic survey was sent to ten participants and nine responded. Ten open-ended questions gathered general perceptions of the program, including strengths, weaknesses, opportunities, and threats as well as the current reputation and value of the program. Second, program information and documents were organized into three categories: content and structure, participant recruitment and selection, and general policies and procedures. We identified 15 people with expertise corresponding to at least one category and invited them to participate in a review of program documents and subsequent focus group. Experts included administrators of similar ANR LDPs, Washington AgForestry alumni, industry representatives, and leadership and adult education specialists. Each participant was assigned to the category corresponding to their expertise, given access to the relevant documents, and provided a fillable PDF form prompting them for feedback on the content of the documents (the actual information that exists regarding the program) and the process (the actual administration and facilitation of the program components). Subsequently, the experts were brought together for an in-person focus

group, with the aim to clarify perceived program outcomes and consolidate feedback into actionable recommendations for the program administrators to consider. Program data from the context evaluation and a summary of the program perceptions survey results were shared at the beginning of the focus group to provide additional information, then experts convened in their assigned groups for category-specific discussion. Six participants discussed content and structure, four participants discussed recruitment and selection, and four participants discussed general policies and procedures. One expert was unable to attend the focus group. A designated note taker accompanied each group to prompt discussion, and capture thoughts, ideas, questions, and feedback. Following the initial round of discussions, participants were reassigned with at least one expert from each category group assigned to a new group, to provide an opportunity to identify overlapping discussion points and recommendations. Again, each new group was assigned a note taker. Finally, the full expert group was reconvened, and each category group shared their recommendations aloud for any additional perspective or comments. The final session was audio-recorded and transcribed.

The program perceptions survey, expert comments from the document pre-review, notes from the segmented focus group sessions, and transcripts from the final open sharing and discussion of actionable recommendations were analyzed through basic qualitative analysis procedures. Inductive, or “open coding” was utilized, in which the evaluators read through the data and developed categories based on what was most important and recurring (Maxwell, 2013). To “condense large amounts of data into more manageable units for analysis” (Saldaña & Omasta, 2022, p. 245) common recurring thoughts and ideas were grouped into similar categories labeled as codes. The codes were then compared and evaluated “both within and between categories” (Maxwell, 2013, p. 107), and themes were derived from the codes. To ensure validity of the research process, two approaches were taken. First, researcher bias was explored and mitigated by having a multi-person evaluation team, and findings were regularly reviewed with the Washington AgForestry administrators. Secondly, reactivity, which is defined as “the influence of the researcher on the setting or individuals studied” (Maxwell, 2013, p.124) was addressed through researcher reflexivity.

Findings

Our primary research question explored the utility of the CIPP model for evaluating ANR LDPs. CIPP can guide both formative and summative evaluation which is particularly useful for ANR LDPs because they are reiterative, selecting a cohort of participants, delivering the multi-seminar program, graduating the cohort, then selecting a new cohort of participants. This provides an opportunity to evaluate previous iterations from a summative perspective while also conducting formative evaluation, given the ongoing nature of the program.

Context

Our context evaluation was primarily summative, seeking to assess the basis for program objectives and what needs, opportunities, or problems were identified that led to them. We analyzed program documents and information shared by program administrators to clarify

what program goals were espoused and prioritized. This important first step allowed us to subsequently evaluate alignment between programmatic decision-making and stakeholder expectations. One challenge we encountered was the breadth of program information that existed, coupled with a lack of organization and consistency across documents. Conversations with program administrators were important sources of data as well as clarification of data. Overall, we found evaluating the context of Washington AgForestry to be a critical first step in the process.

Input

Our input evaluation focused primarily on the three-module framework that guided the delivery of Washington AgForestry across multiple seminars delivered in locations in-state, out-of-state, and internationally. One limitation is the depth of information available about the content. Frequently, only seminar and presentation titles were in program documents, which made it difficult to discern what was conveyed and how. This could be enhanced through observations or by collecting data from current program participants. While we did not assess the program budget, we did evaluate programmatic choices in terms of time, other resources such as access to people and locations, participant time and tuition, and stakeholder priorities. Washington AgForestry administrators simultaneously evaluated their budget and assessed alternative choices and opportunities for future efforts. It may have been useful for program administrators to share budgetary information, particularly during the focus group, as it could have prompted additional or more applicable ideation considering budget resources and restrictions. Overall, we were able to evaluate inputs in a way that informed program administrators' decision-making.

Process

We evaluated the Washington AgForestry process from two perspectives: internal from program administrators and external from other stakeholders, including alumni, industry experts, and leadership specialists. We found value in pairing the internal and external perspectives regarding program processes, particularly as a formative process for planning for future program needs and opportunities. Our evaluation uncovered actionable recommendations to modify some program processes, while retaining or clarifying other processes.

Product

As we engaged stakeholders, we sought to understand their perspectives of the impact Washington AgForestry has had on their industry and how they would articulate its value and importance. Although difficult to quantify, we were able to collect qualitative evidence that strongly supported the continuation of the Washington AgForestry Leadership Program, albeit with potential modifications. This section could have been further strengthened with greater clarity and agreement on program goals by program administrators, participants, and external stakeholders. Additionally, we identified an opportunity to develop an evaluation plan to engage program participants and alumni in assessing program outcomes and impacts.

In our evaluation process, we addressed each of the sections of CIPP. The flexibility of the model allowed us to ask a range of pertinent questions and collect and analyze a variety of data types from multiple sources. We included program administrators and external stakeholders at nearly every step. Most importantly, this robust process culminated in actionable recommendations for improvement alongside confirmation of the value of current program components, with supporting evidence, that were delivered to Washington AgForestry administrators and the Board of Directors.

Our second research question explored the extent to which Washington AgForestry is meeting the current and future needs of stakeholders. Stufflebeam (2003) recommends evaluations be reported in three parts: program background, program implementation, and program results. Here, program background findings were derived from analysis of context and input evaluation data provided by program documents and communications with program staff and administrators. Program implementation findings were derived from analysis of program documents, conversations with program administrators, and external stakeholder feedback. Program results findings are the product of qualitative analysis of the program perceptions survey, focus group participants' program document pre-review, notes from the focus group sessions, and transcripts from the final focus group discussion. These findings are presented as themes.

Program Background

Washington AgForestry began in 1978, graduating the first cohort in 1980. Washington AgForestry's mission is to "cultivate leaders in agriculture, forestry, and natural resources who communicate, collaborate, inspire, and serve" (Washington AgForestry, n.d., pg. 2). Prospective participants must meet the following eligibility criteria: (a) lived and worked in Washington for at least one year; (b) obtain employer approval to take time from work necessary to complete program; and (c) remain employed in agriculture, forestry, or related natural resources industry (AFNR) for the remainder of the program. As of 2025, Washington AgForestry has graduated 45 classes, totaling just over 1,200 individuals. Historically, more males than females have participated, participants are relatively equally distributed across the state, and most participants are employed in the agriculture industry, followed by community/related services, forestry, and fisheries. Participants in Class 45 were responsible for \$6,000 tuition, plus additional expenses such as travel to and from seminars, some meals, a passport, etc. Importantly, it was noted that race/ethnicity and age data of applicants and participants have not been collected.

Program Implementation

Washington AgForestry participants are selected through a competitive application process. A Selection Committee reviews applications and interviews potential participants prior to selecting members for each class. Classes of 15-18 participants engage in nearly 60 days of education, through 13 seminars over 18 months. The program learning objectives are,

1. Learn about exemplary leadership and identify personal strengths and development areas.
2. Enhance communication skills including active listening, public speaking, and meeting facilitation.

3. Effectively work with people with different values, perspectives, and personalities.
4. Build management skills that emphasize listening, questioning, and creating dialogue.
5. Learn to inspire others through storytelling, emotion, and logic.
6. Explore legislative, regulatory, economic, and social issues that impact natural resources industries and rural communities.
7. Learn to take a collaborative approach to problem solving.
8. Understand the public policy decision-making process and how public policy can be changed.
9. Be equipped with tools for crafting and advancing effective public policy.
10. Appreciate the value of relationships built on mutual respect and trust.
11. Develop critical thinking skills.

The program is conceptualized as three modules, each containing multiple seminars. Module one includes three in-state seminars on personal leadership. Two in-state seminars and a seminar in Washington, D.C. comprise the second module on leadership in public policy. The final module focuses on leadership and systems thinking, encompassing six seminars, including an international seminar. Each cohort concludes their program at a final applied leadership and graduation seminar, where they present group public policy projects and celebrate their accomplishments. Throughout the program, participants engage in direct instruction paired with experiential learning. They complete various activities, readings, assessments, and assignments to achieve the stated goals. In-state seminars are conducted at various locations around the state, highlighting the breadth and depth of the ANR industry in Washington (Washington AgForestry, n.d.).

Program Results

We evaluated both process and content in terms of program results, with an aim to determine if the current structure and delivery methods of the program can be improved and if the current content is and will continue to be relevant. Three major themes arose from our data analysis: continuity, diversity, and strength in numbers.

Continuity

The need for continuity emerged as a theme throughout the data. Particular attention was paid to whether and how program objectives, content, and outcomes were aligned and if program structure and administration supported the alignment. It was noted that program objectives should contain measurable outcomes, and those objectives should inform the content of the program. Questions were raised about whether current program objectives were measurable and, if so, how they were being measured. Likewise, program objectives should inform recruitment and selection processes as well as program policies and procedures. The knowledge and skills the program aims to develop should be relevant to and needed by the participants being recruited. Recruitment goals should be reflected in and supported by program policies and procedures. The curriculum map, including the scaffolded modules, was seen as a useful tool, especially for ensuring continuity. Similarly, the continuum articulated through the program design of guiding participants from a mindset of “learner” to “active participant” was noted as positive, and the use of intentional guided reflection was highlighted

as an optimal way to help program participants connect learning objectives to outcomes they perceived or experienced, thus enhancing continuity. Key areas for improvement in this theme included refining and clarifying program objectives, aligning policies and activities with program objectives such as electing ‘officers’ among participants in each program class, and considering how program objectives should inform a recruitment plan and selection processes.

A second aspect of continuity surfaced regarding alignment between program objectives and stakeholders’ expectations of program graduates. Program stakeholders include program administrators, participants, program alumni, ANR industry representatives and others. Specifically, external stakeholders indicated that program success was represented by graduates in ‘visible’ leadership roles (i.e. public advocacy, political positions, policy-making contributions, etc.). Simultaneously, concern about the lack of traditional agriculture producers’ participation was expressed. Focus group participants acknowledged time and cost constraints as likely barriers to producers’ participation. There may be misalignment between the desire for increased producer participation and the expectation that program alumni fulfill visible leadership roles “beyond the farm gate.” Additionally, one focus group participant noted that the program “seems to have limited visibility, both within the agriculture and forestry industry, and certainly outside those industries.” There seemed to be a disconnect between who is participating in the class and who the program was intended to attract and serve, as well as stakeholders’ expectations regarding who should be participating in the program and what successful program alumni should be doing.

Diversity

Diversity arose in two distinct yet related ways: diversity of perspectives in content, and diversity of participants. Regarding diverse perspectives in content, it was noted that a primary outcome for program participants is broad and deep understanding across agriculture and natural resources (ANR) industries, from local to global levels. Moreover, it was suggested that incorporating content beyond traditional ANR, to include the whole food system as well as high-level, cross-cutting issues, such as sustainability, artificial intelligence, and inclusion might be beneficial. It was emphasized that various perspectives should not just be acknowledged but be incorporated throughout content in an equitable way, including attention to language used, the ways in which content is presented, and the amount of time allotted to various perspectives.

Regarding diversity of participants, the need for a diverse candidate pool and balanced selection process aimed at achieving desired representation was expressed. Two specific demographic categories of concern were identified; primary industry and race/ethnicity. The qualitative data clearly conveyed a concern for increasing the number of participants who identify as traditional agricultural producers. The most recent program data indicates a trend of nearly half of class participants identifying their primary industry as “community or related services” including banking, insurance, conservation districts, government agencies, etc. Qualitative data also indicated stakeholder desire for increasing the number of applicants and participants from Tribal communities and communities of color. It is important to note that race and ethnicity demographics have not been historically collected from applicants or participants,

so their representation or lack thereof cannot be substantiated quantitatively at this point. Importantly, stakeholders recognized the program currently does not have a recruitment plan and shared concerns that the program may not achieve diverse applicants or participants without intentional recruitment efforts focused on desired demographics.

Strength in Numbers

Networking and network development were identified as important outcomes for program participants. Despite some deliberation among focus group participants about how the program could be administered differently to address financial, time, or other challenges, there was overwhelming agreement that participant relationships developed because of time spent together and outweighed any potential advantages of a different program structure. One program alum stated, “It was a life changing experience where I gained confidence, a robust network and a group of lifelong friends.” Moreover, data suggest that network development and maintenance should extend beyond time in the program, to engage alumni more intentionally and effectively. This may also lend itself to continuing education opportunities for alumni.

Ideas related to enhancing cohesion of the cohort surfaced as well. Stakeholders encouraged the expectation of 100% attendance at seminars. They also recommended that additional equitable policies modeled after the existing international travel policy be considered to further encourage cohesion of class participants.

Conclusions, Discussion, and Recommendations

We found the CIPP model to be a useful evaluation framework for an ANR LDP. The model is robust yet flexible, which allowed us to address pertinent questions for program administrators’ decision-making, leading to meaningful recommendations. We incorporated a wide variety of perspectives through our data collection to support a well-rounded evaluation of Washington AgForestry. Moreover, this approach can be both formative and summative, which may facilitate continual improvement of ongoing, iterative programs. Program evaluation can be time-intensive and complex. We recognize not all programs have resources to conduct such a holistic evaluation. However, evaluators do not have to carry out all four CIPP model components. Rather, program administrators and evaluators should carefully consider which are most important, given the life stage of the program, the purpose of the evaluation, and the availability or accessibility of data. We recommend IAPAL members and other similar ANR LDPs use the CIPP model for evaluation and share their process and results. Stufflebeam’s (2003) recommended reporting format of program background, context, and results enhances transferability. Applying a consistent model to evaluate similarly structured ANR LDPs would build a valuable knowledge base documenting outcomes, impacts, and potential needs of such programs, potentially resulting in collectively improving programs.

Regarding the Washington AgForestry Leadership Program, we conclude that the current content and structure is fulfilling the stated mission and there is strong stakeholder support.

Simultaneously, areas for improvement, future growth and longevity were noted. The cohort model was noted as a strength and critical for achieving the network identified as one of the most important outcomes for participants, the program, and the industry. We strongly recommend the cohort model be retained and opportunities to further enhance and support the development and maintenance of participants' and alumni networks be considered.

Two primary areas for improvement were identified, namely continuity and diversity. Regarding continuity, we conclude that alignment from stakeholder expectations, through program objectives, to measurement of objectives is important and should be carefully reviewed. Moreover, consistency throughout and across program documents and communications can confirm and enhance alignment. Therefore, we recommend that Washington AgForestry conduct a thorough review of program documents to ensure consistency and alignment of program objectives, policies, and communications. Regarding diversity, stakeholders voiced a desire to ensure various perspectives were considered and presented equitably across programming. This may be difficult to document, however, we recommend that program administrators consider what perspectives are included in future programming. Additionally, stakeholders shared concern regarding diversity of participants, specifically the number who identified as traditional agricultural producers as well as participants who identified as a member of a Tribal community or person of color. Given the robust discussion about this topic, we conclude that demographic makeup of cohorts is a concern of stakeholders and therefore recommend that program administrators work with stakeholders to identify the ideal mix of participant demographics in each cohort and develop a corresponding recruitment plan. Important demographics should be collected consistently during the application and selection process, and if possible, data from previous participants should be collected so an accurate assessment of historical participant demographics can guide decision-making.

Finally, we recommend Washington AgForestry and other ANR LDPs establish and maintain an evaluation plan, regularly collecting and analyzing relevant data to ensure program objectives are being realized in the best way possible.

Acknowledgments

We thank Hannah Poush, Kyle Brooksher, Julie Grenfell and Vicky Scharlau who were our partners at Washington AgForestry and Agriculture and Forestry Education Foundation, without whom this work would not have been possible. Thank you for initiating this work, inviting us to conduct this evaluation, and providing information and support throughout the process.

Funding Information: This research was funded by the Washington State Department of Agriculture Specialty Crop Block Grant program, Grant No. K3952 (AGR00026754)

Conflict of interest: There are no known conflicts of interest.

Previous Dissemination: This evaluation research has not been previously reported.

Artificial Intelligence: No artificial intelligence was used in the development of this manuscript.

Author Contribution Statement: **L. Greenhaw-** conceptualization, methodology, formal analysis, investigation, writing- original draft, review, & editing, supervision, project administration; **R. Biderman-** formal analysis, investigation, writing- original draft, review, & editing.

References

- Carter, H., & Rudd, R. D. (2000). Evaluation of the Florida leadership program for agriculture and natural resources. *Journal of Southern Agricultural Education Research*, 50(1), 199–219. <http://jsaer.org/wp-content/uploads/2020/06/Volume-50-Full-Issue.pdf>
- Dunbar, J. D. (2022, July). International Association of Programs for Agricultural Leaders. *Who we are*. <https://www.iapaleadership.org/who-we-are>
- Lamm, K. W., & Carter, H. S. (2019). Leadership development program evaluation: A social network analysis approach. *Journal of Southern Agricultural Education Research*, 69(1), 4-19. <http://jsaer.org/2019/01/02/leadership-development-program-evaluation-a-social-network-analysis-approach/>
- Lamm, K. W., Carter, H. S., & Lamm, A. J. (2016). Evaluating extension-based leadership development programs in the southern United States. *Journal of Agricultural Education*, 57(1), 121–136. <https://doi.org/10.5032/jae.2016.01121>
- Madsen, W., O’Mullan, C., & Keen-Dyer, H. (2014). Learning and leadership: Evaluation of an Australian rural leadership program. *Australian Journal of Adult Learning*, 54(1), 30–49.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach*. SAGE Publications, Inc.
- Northouse, P. G. (2022). *Leadership: Theory and practice*. SAGE Publications, Inc.
- Washington AgForestry. (n.d.). *Participant program handbook*. <https://agforestry.org/programs/>
- Saldaña, J., & Omasta, M. (2022). *Qualitative research: Analyzing life*. SAGE Publications, Inc.
- Stufflebeam, D. L. (1983). The CIPP model for program evaluation. In: D. L. Stufflebeam, G. F. Madaus, & T. Kellaghan (Eds.), *Evaluation models* (pp. 279–317). Springer, Dordrecht. https://doi.org/10.1007/978-94-009-6669-7_7

- Stufflebeam D. L. (2003, October 3). *The CIPP model for evaluation*. [Paper presentation]. Annual conference of the Oregon program evaluators network (OPEN), Portland, OR, United States. <https://goeroendeso.wordpress.com/wp-content/uploads/2009/01/cipp-modeloregon10-031.pdf>
- Wallace, D. M., Torres, E. M., & Zaccaro, S. J. (2021). Just what do we think we are doing? Learning outcomes of leader and leadership development. *The Leadership Quarterly*, 32(5), 101494. <https://doi.org/10.1016/j.leaqua.2020.101494>
- W.K. Kellogg Foundation. (2000). *The legacy of the ag leadership development program: Rich heritage cultivates future opportunities* (Item #534). W.K. Kellogg Foundation.
- Zhang, G., Zeller, N., Griffith, R., Metcalf, D., Williams, J., Shea, C., & Misulis, K. (2011). Using context, input, process and product evaluation model (CIPP) as a comprehensive framework to guide the planning, implementation, and assessment of service-learning programs. *Journal of Higher Education Outreach and Engagement*, 15(4), 57–83. <https://files.eric.ed.gov/fulltext/EJ957107.pdf>

© 2025 by authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).