EDC Education Development Center

Leap into science Engineered by THE FRANKLIN INSTITUTE

Cultivating a National Network for Informal Science and Literacy

Summative Evaluation Report

November 2023

About This Report

The following summative report describes overarching evaluation findings from the evaluation of Leap into Science including future considerations for the Leap into Science program team (program team). The report's purpose is to summarize takeaways from 2018-2023 and report on overall insights pertaining to the core evaluation questions of interest. Additional information related to the data which informed this report can be found in Appendices B-L.

This report is organized by the following sections:

Acknowledgments

EDC would like to extend our gratitude to the program team for their reflections and engagement with the evaluation process over the years, and the state leaders and educators for sharing their ideas, feedback, and experiences with us.

Program Overview

From 2018-2023, The Franklin Institute, National Girls Collaborative Project, and the Institute for Learning Innovation led Leap into Science: Cultivating a National Network for Informal Science and Literacy (Leap into Science). Funded by the National Science Foundation, the program spanned five years, included 18 state leadership teams from 19 states[1] who disseminated the program across 20[2] states. Education Development Center (EDC) served as the program's external evaluator.

This program aimed to scale the previously piloted Leap into Science program by creating a sustained national network of informal educators prepared to disseminate science and literacy programming to children and families in underserved rural and urban communities. The program team sought to reach this goal through a cohort-based train-the trainer model, in which they trained state leadership teams on the Leap into Science curricula and facilitation strategies through an annual National Leadership Institute. In turn, state leaders returned to their states to recruit and train educators from various organizations to implement science and literacy workshops with children and families at their sites. Through these pre-school, elementary, or family workshops, children and families listened to a science-related book and then were led through activities related to topics such as Balance, Wind, or Light and Shadows. State leaders and educators were expected to implement the program in line with "essential elements" and "flexible elements." For example, essential elements included use of the Core Four strategies and flexible elements included use of certain materials during workshops.

State leadership team members purposefully represented state library networks, museums, and state afterschool networks. Similarly, educators worked in a variety of informal learning settings such as libraries, museums, afterschool programs, and childcare organizations. Educators then served children and family participants via their organizations (e.g., afterschool program family nights, library story time, museum summer festivals).

About the Evaluation

EDC evaluation efforts investigated formative and summative evaluation questions related to the following five areas:

(1) Program model
(2) Outcomes for state leaders and educators
(3) Scale
(4) Adaptations related to audiences
(5) How The Franklin Institute is known

[1] State leadership teams included teams from Alaska, Arkansas, Arizona, Indiana, Kansas and Missouri (who formed one team across their two states), Louisiana, Michigan, Montana, North Carolina, New Jersey, New Mexico, Ohio, Oregon, Pennsylvania, Tennessee, Washington, West Virginia, and Wyoming.

[2] Leap into Science was also disseminated in New York, though New York did not have a participating state leadership team.

Overview (cont.)

Throughout the evaluation, we collected data using a mixed-methods approach. Data collection methods included surveys, interviews, focus groups, in-person observations, virtual observations, and secondary data review (e.g., attendance lists). As we investigated the scale up of the network model, data collection activities focused on state leaders and educators; children and families were the focus of the Institute for Learning Innovation's research effort. Data collected by the EDC team informed formative improvement and was also interpreted for summative purposes. For a detailed list of data collection methods, see Appendix A.

COVID-19 Pandemic Shifts

The COVID-19 pandemic affected program dissemination in 2020-2022. Namely, the program team implemented virtual shifts of three core programmatic elements from in-person to a virtual format, including the National Leadership Institute, educator trainings, and children and family workshops.

To understand the implications of shifting these three program elements to a virtual format, EDC shifted its evaluation plan to investigate data from the National Leadership Institute Post-Surveys (2018, 2019, and 2020), Educator Training Post-Surveys (2018 and 2021), Educator Training Virtual Observations (2021), and Cohort 1 and 2 Focus Groups (2021). Although using these data to understand the virtual implementation was not part of the original evaluation plan, these data contribute to overall learnings about fidelity of implementation; implications for outcomes for state leaders and educators; adaptations; and implications of future virtual program dissemination.

Limitations

Based on the data examined, we must note the following limitations to this evaluation report:

- These findings reflect both a reexamination of past data collected and evaluator reflections, as no new data were collected in the final year of the program.
- Educator data reflect a sample of educators and are not representative of all educators trained.
- As no new data were collected in the final year, these findings represent a synthesis of data from states in Cohorts 1-3, and do not represent Cohort 4 state leaders or educators.
- Interview participants, focus group participants, and survey respondents chose to participate in the evaluation. Therefore, the findings are subject to selection bias and should not be generalized to the entire group of participants.
- Due to limits on evaluation resources, EDC conducted limited observations of program pieces.
- This evaluation relies on self-report, which may lead to biases due to, for example, social-desirability or changes in understanding as participants deepen their understanding of program components (e.g., the Core Four strategies, science and literacy activities).

Findings: The Program Model

The results below relate to core components of the Leap into Science program model including the National Leadership Institutes, state leadership teams, educator trainings, and workshops.

Key takeaways related to the program model include:

- National Leadership Institutes were well-received and implemented with fidelity.
- In-person National Leadership Institutes seemed to prepare state leaders better and encourage higher levels of collaboration relative to the virtual National Leadership Institute. National Leadership Institutes were key in setting the stage for scaling the program.
- State leaders collaborated and built relationships with one another via their state leadership teams; however, staff turnover on state teams proved a persistent challenge and teams may not have the resources to continue their momentum.
- Educators responded positively to their training and tended to feel more prepared after in-person trainings relative to virtual trainings.
- The Leap into Science workshop model was well-regarded by educators and state leaders, and observed workshops were implemented with fidelity, though components of workshops were adjusted to meet the needs of the audience.

The National Leadership Institute established a foundation for state leaders.

The program team implemented three National Leadership Institutes which trained state leaders on how to (1) disseminate Leap into Science and (2) train educators to implement workshops with children and families. National Leadership Institutes were implemented with fidelity as evidenced by observations from the 2018 and 2019 in-person National Leadership Institutes (see Appendix B for more information related to fidelity of implementation), and were consistently well-received by attendees in 2018, 2019, and 2020 (see Appendix C for the 2018, 2019, and 2020 National Leadership Institute post-survey results).

The National Leadership Institutes provided state leaders time to be grounded in the program goals, learn about expectations and programmatic components, and meet each other. As noted in the Considerations for Scale Results of Cohorts 1 and 2 Focus Groups (see Appendix D), connections made during National Leadership Institutes resulted in stronger state leadership teams and new partnerships between state leaders and organizations across states.

However, in-person experiences seemed to ground participants more strongly in the program relative to the virtual National Leadership Institute. Specifically, respondents to the 2020 virtual National Leadership Institute post-survey felt less prepared to “disseminate Leap into Science in their state” compared to 2018 and 2019. In 2018 and 2019, at least 89% of respondents reported that they “Agree” or “Strongly agree” that they were prepared to “disseminate Leap into Science in their state,” whereas in 2020, only 47% of respondents “Agree” or “Strongly agree” they were prepared to “disseminate Leap into Science in their state.”

Findings: The Program Model (cont.)

National Leadership Institutes were also an opportunity for the program team to surface anticipated challenges and for state leaders to raise important issues. For example, during the 2018 National Leadership Institute, a state leader raised an issue related to the lack of ethnic and racial diversity of state team member attendees, and other state leaders noted the lack of books representing diverse youth on the materials list. Subsequently, the program team made changes to the program (e.g., recruitment process, book list) based on this direct feedback from state leaders.

The state leadership team model provided members opportunities to work cross-sector and connect with organizations they might not typically encounter.

States designed their teams and selected members in advance of the Leap into Science application process and applied as a group. Teams purposely included leaders from different sectors (e.g., afterschool, museums, libraries) so that the program could be broadly disseminated throughout their states through these networks. Overall, the state leadership team aspect of the model proved strong. Specifically, being part of a state leadership team kept the members' focus on the importance of building and sustaining partnerships in their states, though at the same time, they were affected by persistent challenges including:

- Leap into Science was often more work than state leaders anticipated or had allotted resources to support.
- State leaders did not always have the capacity to accomplish all the tasks they had intended as a group, especially alongside their regular jobs.
- Turnover in state leadership teams was a concern, and some teams wished they had made better plans for when turnover inevitably occurred due to changing jobs or roles.

Respondents found educator trainings to be valuable, and observed trainings were implemented with fidelity.

State leaders led training opportunities for educators in their states on the topics of Balance; Wind; or Light and Shadows. Following the start of the COVID-19 pandemic in 2020, educator trainings first paused altogether and then shifted from in-person to virtual with the use of a hybrid model which continued through the end of the program.

Overall, data from educator training post-surveys demonstrate that at least 88% of educator respondents found the level of information presented to be "Just right" and at least 87% of respondents found their trainings to be "Very valuable" or "Extremely valuable." Additionally, trainers were well-received by educators, and at least 66% of respondents "Strongly agree" that the trainer appeared comfortable facilitating the content (see Appendix E for educator training post-survey results). Observed educator trainings were implemented with fidelity, as it followed the program team's program model (see Appendix F for in-person and virtual educator training observation summaries).

Findings: The Program Model (cont.)

Educator trainings provided opportunities for attendees to learn the ins and outs of Leap into Science, to engage with the materials of the workshops first-hand, and to learn about program expectations. Overall, attendees who responded to the survey found the trainings to be valuable. However, attendees reported in surveys that the materials and content could be too elementary at times. Specifically, educators who rated the overall trainings as less valuable tended to cite that they were already familiar with the content and facilitation strategies.

Additionally, trainings did not provide sufficient opportunities for educators to network with each other. Respondents tended to rate the networking activities as less valuable compared to other areas of the training. Thus, while educator trainings supported attendees in implementing workshops, they did not always provide the flexibility to adjust content or messaging based on audience and did not provide sufficient opportunities for educators to engage meaningfully with one another.

The workshop model was well-regarded by state leaders and educators.

Throughout the program, educators implemented approximately 1,908[3] workshops with children and families. Workshops occurred in a range of settings including libraries, afterschool programs, museums, schools, and camps, among others.

Observed workshops were implemented with fidelity, especially pertaining to the Core Four strategies (see Appendix G for the workshop observation summary). State leaders from Cohorts 1 and 2 in focus groups described the workshop model as "universal" and the model was easily incorporated into other programs. The clearly defined workshop flow was replicated in other programs, and elements such as the Core Four strategies carried over into other trainings led and organized by state leaders.

At least 88% of respondents to the educator training post-surveys found learning about the Core Four strategies during their training "Very valuable" or "Extremely valuable" and implemented the strategies during workshops observed by EDC, especially asking questions, encouraging participants to think scientifically, and making connections. Cultivating rich dialogue was observed less compared to the other three strategies.

[3] This number reflects attendance submitted by state leaders and educators via programmatic forms. As a result, the total presented here may not be representative of the entire program, as it is likely that more workshops occurred than were reported.

Findings: The Program Model (cont.)

Based on data from the Educator Summative Survey, at least 70% of respondents reported modifying workshop activities to meet the needs of their audiences (see Appendix H for Educator Summative Survey results). Based on interviews, educators blended activities from different workshops to meet the ability level of the children and used different materials (e.g., a birthday hat as a fulcrum or a different balance book) (see Appendix I for the educator interview summary). Yet, EDC observed "essential elements" during workshops, including:

- Educators engage participants of all ages, genders, ethnicity, language, abilities, and sociability.
- Participants and families must have fun!
- If selected a different read aloud book, it follows the criteria outlined in the curriculum.

While workshops were well-regarded, they were also a source of burdensome reporting requirements for educators. The requirement to add workshops conducted into the Connectory[4] was onerous for educators and at times proved to be a barrier for participating in the program.

[4] The Connectory has since been updated and is now Connected Girls.

Findings: State Leader and Educator Outcomes

The following section reports on evaluation findings related to outcomes for state leaders and educators. Findings below reflect those stated in the 2022 NSF annual report.

Key takeaways related to outcomes include:

- State leaders gained confidence, knowledge, and skills in training educators because of their participation in Leap into Science.
- Educators gained confidence, knowledge, and skills from being trained and leading Leap into Science workshops.
- State leadership teams concluded their work with Leap into Science largely reporting high levels of team-wide collaboration.

State leaders reported increasing their confidence, knowledge, and skills in training others to lead science and literacy programs.

EDC asked state leader survey respondents about their level of confidence training educators to lead science and literacy programs before and after participating in Leap into Science as part of the summative survey. After Leap into Science, 50% more respondents indicated they were highly confident training educators to lead science programs (80% as compared to 30%) and 35% more respondents said they were highly confident training educators to lead literacy programs (76% as compared to 41%).

When EDC asked state leader survey respondents to the summative survey about their level of knowledge in training educators to lead science and literacy programs before and after Leap into Science, 50% more respondents indicated they were highly knowledgeable in training educators to facilitate science programs following Leap into Science (77% as compared to 27%). At the same time, just 44% more were highly knowledgeable about training educators to lead literacy programs following Leap into Science (77% as compared to 33%).

Finally, most respondents indicated that participating in Leap into Science helped them develop their skills in training educators to implement science and literacy activities to a moderate or high extent (90% and 83% respectively; see Appendix J for State Leader Summative Survey results).

Findings: State Leader and Educator Outcomes (cont.)

Educators reported gaining confidence, knowledge, and skills in leading science and literacy workshops.

When asked to rate their level of confidence leading science and literacy programs before and after Leap into Science as part of the summative survey, 39% more educator respondents indicated they were highly confident leading science programs after Leap into Science (60% as compared to 21%). At the same time, 22% more educator respondents said they were highly confident leading literacy programs (65% as compared to 43%) after being trained in Leap into Science.

When asked to rate their level of knowledge about leading science and literacy programs, 34% more educator respondents indicated they were highly knowledgeable about leading science programs (50% as compared to 16%) and 24% more were highly knowledgeable about leading literacy programs (63% as compared to 39%) after Leap into Science. Almost all educator respondents agreed that participating in Leap into Science helped them develop their skills leading science and literacy activities (99% and 96% respectively).

State leaders strengthened their collaboration across their team's organizations, especially after meeting in-person at the National Leadership Institute.

Based on the collaboration scale from lowest to highest: (0) No interaction; (1) Networking; (2) Cooperation; (3) Coordination; (4) Coalition; and (5) Collaboration, 24% of state leader respondents indicated they were in the Collaboration stage following the 2018 National Leadership Institute, and 35% of 2019 respondents indicated they were in the Collaboration stage post-National Leadership Institute. In 2020 (virtual format), while there was still a positive shift to higher levels on the collaboration scale, just 13% of respondents indicated they were in the Collaboration stage.

Additionally, following the virtual National Leadership Institute, there was a slight decrease in the percentage of state leader respondents who indicated they "Agree" and "Strongly agree" that they felt prepared to train educators to lead workshops in their state relative to the in-person experiences. Eighteen percent of 2020 (virtual format) respondents "Strongly agree" that they felt prepared to train educators, compared to 72% who indicated they "Strongly agree" in 2018 and 40% who indicated they "Strongly agree" in 2019.

When EDC administered the State Leader Summative Survey in 2022, results demonstrated that state leadership teams strengthened their collaboration. Most respondents reported their state teams were at the level of Coalition or Coordination (33% and 33%). Approximately 27% reported their state team's level in the Collaboration state.

Findings: Program Scale

The following section reports on evaluation findings related to scale on four dimensions as defined by Coburn (2003)[5]: depth, spread, shift, and sustainability. For purposes of this program, these dimensions are defined as:

1. **Depth:** Changes in beliefs or practices
2. **Spread:** Sharing strategies and resources with intended audiences, institutions, peers, or networks
3. **Shift:** Program ownership at the state leadership team or educator levels
4. **Sustainability:** Intent to continue disseminating the program after the grant ends

EDC examined scale at both the state leadership team and educator levels. Findings below reflect those stated in the 2022 NSF annual report.

Key takeaways related to scale include:

- Leap into Science has scaled within the context of state leadership teams in respect to all four of Coburn's dimensions. While there is strong evidence to support scale in relation to depth and spread, there is mixed evidence for shift and sustainability.
- The program has scaled as it relates to educators, with strong evidence for depth and sustainability, and minimal but positive evidence for spread and shift.

Solid evidence emerged across state leadership teams for both depth and spread with mixed evidence for shift and sustainability.

In focus groups with Cohort 1 and 2, state leaders were asked to reflect on the extent to which Leap into Science had scaled according to Coburn's four dimensions of scale. From that data collection effort, the following insights emerged.

Dimension 1: Depth State leaders reported gaining new beliefs and practices, incorporating new strategies to engage children and adults in the content, and incorporating elements of the Leap into Science model into other programs and initiatives with which they are involved. Barriers to scale were minimal for this dimension.

Dimension 2: Spread State leaders reported spreading Leap into Science within their state, reaching new communities and new educators, and further building their networks to continue momentum for future projects. Barriers related to disseminating the program, particularly in rural areas, made it hard to reach underserved audiences consistently. State leaders also did not have a solid system to track who their educators reached through the program. In future initiatives, these are areas that the program team may continue to examine and refine.

[5] Coburn, C. E. (2003). Rethinking scale: Moving beyond numbers to deep and lasting change. Educational researcher, 32(6), 3-12.

Findings: Program Scale (cont.)

Dimension 3: Shift Evidence of shift in ownership was mixed. Most state leadership teams saw the program as a product of The Franklin Institute and their role was to disseminate the program throughout their states. For most teams, this thinking was consistent with other grant funded programs in which they participate. However, teams did report feeling responsible for and in control of dissemination in their state and appeared to own that piece of the program model.

Dimension 4: Sustainability Of the four dimensions, state leadership teams showed the least progress on this dimension at the time of the focus groups. Limiting factors such as turnover on the state leadership team level, lack of understanding educators' plans to continue, and ambiguity over funding mechanisms presented the three largest challenges to sustainability.

State leaders see funding and staff capacity as core barriers to sustainability.

EDC followed up with state leaders via the State Leader Summative Survey to gather additional data related to the sustainability dimension which was of particular interest to the program team. When asked about their plans for continuing to implement the program, approximately 41% of state leaders who responded indicated they would continue to disseminate Leap into Science in some way. Twenty-three percent indicated they would not continue, 18% were hopeful they could continue, and 19% continued to be undecided.

Those who said they would continue disseminating the program shared that they plan to do so with groups they have not yet reached (e.g., pre-service teachers), that they would continue to find other ways to work together as a state leadership team, and that they would continue to use the Leap into Science material kits. Those who said they would not continue disseminating the program flagged reasons such as lack of funding and lack of staff capacity.

Evidence points to signs of scale at the educator level although at varying degrees by dimension.

As for evidence of scale on the educator level, Educator Summative Survey respondents reported positive evidence related to the depth dimension (e.g., incorporating the Core Four strategies into other programs, infusing programs with science and literacy elements, opening programs to families and not only youth, etc.). They also shared examples related to the spread dimension (e.g., sharing facilitation strategies, activities, or kits with colleagues within their institution), and the shift dimension (e.g., using Leap into Science activities in other formats, using kit activities in new ways).

Related to the sustainability dimension, over half of educator respondents (57%) indicated that they were "Highly likely" to continue hosting workshops in the future. Finally, respondents to the Educator Summative Survey reported that they intend to continue applying what they learned by continuing to implement Leap into Science activities, infusing the Core Four strategies and other Leap into Science elements into future programs, infusing literacy into science programs and science into literacy programs, and engaging families more.

Findings: Underserved Audiences

The following section reports on evaluation findings related to the audiences served by Leap into Science. See the 2021 NSF report for additional information related to findings about reaching underserved audiences.[6]

Key takeaways related to underserved audiences include:

- State leadership teams did not have a common definition of "underserved audiences" and as a result, the program was disseminated to a wide range of educators and children and families.
- State leadership teams tended to rely on their existing networks to recruit educators, though some reached out to new audiences.
- The distinction between rural and urban audiences proved challenging for the program team and state leadership teams as evidence shows that defining these terms has cultural and social implications, despite the ways in which they are geographically defined by the federal government in relation to population and density.

State leaders interpreted the concept of "underserved audiences" broadly and somewhat ambiguously.

The Leap into Science program sought for workshops to serve "underserved audiences" which was originally defined in the context of rural and urban audiences. However, this term was left purposefully flexible by the program team and up to interpretation by state leadership teams. As a result, in focus groups with Cohort 1 state leaders (see Appendix K for the Cohort 1 focus group summary), state leader participants defined the groups they sought as children and families in rural areas, communities that were lacking resources, communities with low-income populations, and audiences whose first language was not English, among other characteristics.

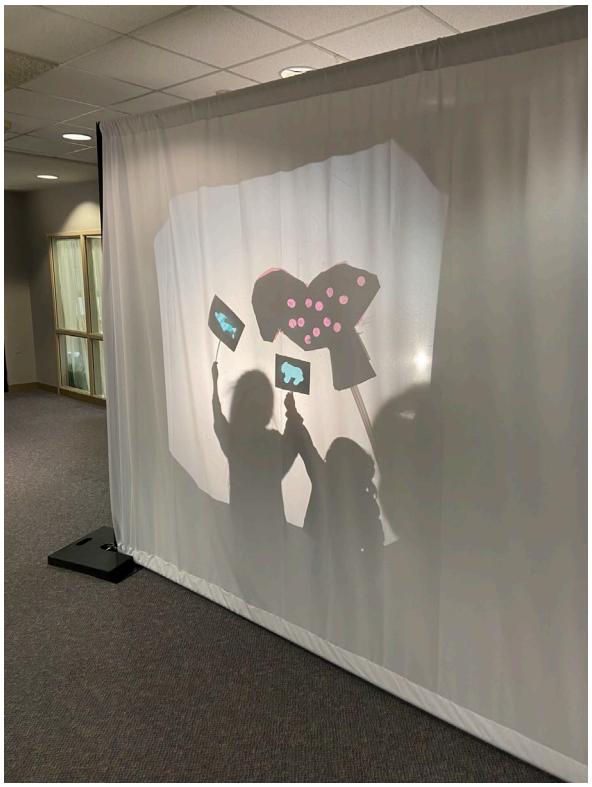
State leadership teams in Cohort 1 and 2 focus groups reported that they characterized underserved audiences by geography, with teams describing that they sought to reach rural communities. State leaders did not speak about race or socioeconomic status to frame who they served. There was some mention of working with educators and families who did not speak English as their first language; however, state leaders mentioned these populations as groups they could have better served as opposed to populations they successfully reached.

[6] This term was originally used by the program to define the populations they were most interested in serving through Leap into Science. Since the outset of the program, the team's perspective of this term has evolved.

Findings: Underserved Audiences (cont.)

State leadership teams tended to disseminate the program to audiences with whom they were familiar.

Ultimately, state leaders sought to reach a wide range of educators and in most cases, they showed they were successful. In Cohort 1 and 2 focus groups, teams talked about casting a wide net and trying to reach as many people as possible in their state through trainings and workshops, in some cases by looking outside of their sector to other areas like family-based childcare centers. Due to their specific workplace, some state leaders could not exclude people from trainings or workshops (e.g., libraries), which is one way they ended up with a diverse group of educators from various sectors, who in turn served children and families that attended their programming. Aspects of the program design made it hard to reach identified underserved audiences consistently, particularly in rural areas or in areas with families with English language learners (e.g., families driving long distances to in-person programs when balancing the cost of gas, groceries, and childcare with additional costs and materials in limited languages).



As a result, it is unclear from the evaluation whether Leap into Science was broadly implemented within communities who were most interested in this type of programming or within communities that historically did not have access to this type of programming. While it is evident that this program was implemented across many libraries, for example, children and families who were most interested in workshops may not have been able to access activities if they occurred during the traditional workday (i.e., 9am-5pm).

Findings: The Franklin Institute

The program team was originally interested in understanding the extent to which The Franklin Institute is known by state leaders and educators after participating in Leap into Science, and what types of additional resources related to curriculum and materials that might be useful to educators. The following section reports on evaluation findings related to knowledge of and familiarity with The Franklin Institute. See the 2021 NSF report for additional information related to findings about The Franklin Institute.

Key takeaways related to The Franklin Institute include:

- Educators and state leaders are aware of The Franklin Institute and interested in receiving additional resources.
- State leaders view The Franklin Institute in a positive light and as a trusted source of STEM programming.

State leadership teams in Cohort 1 highly regarded The Franklin Institute, with 95% of respondents indicating that they "Agree" or "Strongly agree" that it is a trusted source for high quality STEM curriculum and programming for children and families (see Appendix L for Cohort 1 State Leader Annual Survey results). Educators responding to the Educator Summative Survey indicated that they were already familiar with The Franklin Institute prior to completing the survey (85% of respondents). Of those who were familiar with The Franklin Institute, nearly all thought the organization was a trusted source for high quality STEM programming (99%).

When educator respondents to the Summative Survey were asked about their organizations' interest in more resources and curriculum from The Franklin Institute, nearly all respondents thought their organization would like to receive more curriculum and training like Leap into Science (98%); however, 23% of respondents were unsure whether their organization would be willing to pay a fee for access to more Leap into Science curriculum and 32% were unsure whether their organization would be willing to pay for a materials kit.

Findings: Influence of the COVID-19 Pandemic

The following section reports on findings related to the implications of program shifts during the COVID-19 pandemic. Results presented below are represented in the Exploratory Evaluation Summary Memo of February 2023.

Key takeaways related to implications of the COVID-19 pandemic include:

- Like many other informal education programs during this time, staff at all levels of the program model faced burnout or layoffs during the pandemic, which influenced the time and attention state leaders had to dedicate to the program and their ability to engage educators.
- Educators were innovative during the pandemic, finding ways to ensure families received materials despite restrictions on gathering in-person.

Overall, in-person components were preferred to virtual offerings; however, virtual trainings and workshops likely broadened the reach of the program.

The COVID-19 pandemic occurred at a key point in many states' dissemination and state leaders reported it impacted their programs in different ways. For example, it brought a stop to in-person trainings and workshops which are central components of the program model. In a quick pivot, state leadership teams shifted to virtual offerings where possible with support and guidance from the program team.

Additionally, the COVID-19 pandemic caused a loss of staff at institutions (e.g., museums, out-of-school time providers) at both the state leadership team and educator levels in the height of program dissemination. While the change to virtual trainings enabled state leaders to reach a wider educator audience, state leaders also indicated that they have seen educators burn out which made engaging them in trainings and quarterly calls more challenging. They also reported their own feelings of burnout and competing demands in their jobs which had put Leap into Science on the backburner for some.

For educators who were able to continue implementing workshops, they reported adjusting workshops because of COVID-19 by making activities socially distanced, doing workshops outside, implementing virtual workshops via Zoom, and providing take-home kits for families. In some cases, the pandemic halted workshop offerings altogether while others shifted materials that they used. For example, an educator needed digitally available books and as a result selected different books from the original list so that patrons would have electronic access.

Overarching Takeaways

EDC and the program team have worked closely throughout the program to incorporate participant feedback, examine data, and reflect on ways to refine the program to best meet the needs of children and families. We communicated regularly with the team about evaluation data and findings, implications for formative improvement, and have facilitated discussions about what these insights might mean for future endeavors.

In this spirit, we offer the following final takeaways based on the data presented in this report:

- National Leadership Institutes offered good opportunities for grounding the program and building strong teams; while facing benefits and challenges with virtual implementation.
- State leaders worked together cross-sector which allowed them to focus on building their networks and reaching different populations in their states, but sustainability may be a challenge.
- Educator trainings provided positive opportunities for people to learn about the program and build skills to facilitate science and literacy workshops but missed opportunities for networking.
- Workshops were generally well-received by state leaders and educators, and the workshop format enabled educators from diverse professional and sector backgrounds to facilitate science-based activities confidently. Yet, the workshop content did not always align with educator needs for their specific audiences.
- A wide range of audiences were reached by Leap into Science, and while it remains unclear the extent to which “underserved populations” in urban and rural areas engaged in the program, state leaders and educators connected with their audiences to share programming.

Considerations for the Future

Reflecting on the themes surfaced across data sources, we offer the following questions for consideration:

- How could the program team better define issues related to equity to ensure that the program reaches children and families who want these types of programs, but do not have access to them?
- How can the program team de-emphasize the focus on fidelity and instead support adaptations via essential and flexible elements?
- What additional strategies can the program team implement for state leaders or educators to make the most out of virtual training experiences?
- How can the program team streamline reporting requirements and help state teams better track activities of their educators?
- How can trainings be enhanced to include time for educators to have meaningful time to network?

List of Appendices

This report references the following list of attached appendices:

- Appendix A. Evaluation Methods and Activities
- Appendix B. National Leadership Institute Summary Reports
- Appendix C. Comparing National Leadership Institute Survey Results: 2018, 2019, and 2020
- Appendix D. Considerations for Scale Results of Cohorts 1 and 2 Focus Groups
- Appendix E. Educator Training Post-Survey Results Summaries
- Appendix F. Educator Training Observation Summaries
- Appendix G. Workshop Observation Summary
- Appendix H. Educator Summative Survey Results
- Appendix I. Cohort 1 Educator Interview Summary
- Appendix J. State Leader Summative Survey Results
- Appendix K. Cohort 1 State Leader Focus Group Summary
- Appendix L. Results of the Cohort 1 State Leader Annual Survey Results of the State Leader Annual Survey