

Strategies for Longitudinal Studies

What we've tried, what we've learned

The strategies here are drawn from the experiences of three research teams conducting longitudinal research in multiple museum contexts: The American Museum of Natural History, Museum of Science & Industry, Chicago, and The Lawrence Hall of Science. Given the limited longitudinal research on museum program impact on youth trajectories, we provide these strategies to support others interested in conducting longitudinal studies.

What prompted you to engage in longitudinal research in your setting?

The potential to understand:

- the long-term impacts we were seeing and hearing about from program graduates informally and the role of programming in youth people's trajectories
- the features of programming that are most and least effective in supporting youth in their college and career goals, their attitudes towards and interests in science, and contributions to emerging adulthood



The potential to inform:

- our current/future program development
- how we and other institutions can continue to support youth in their trajectories

What advice do you have for researchers, or research teams, interested in engaging in longitudinal research?

- Work with researchers inside and outside your own institution: collaborate with other researchers as partners, developing a community of researchers who can investigate and invest in this work together.
- Ensure all researchers have communicated clear roles to self/others and can understand each other's time commitment to the project.
- Plan as early as possible! Longitudinal research is complex; a tiny change to one part of the plan can escalate into major implications in other areas of your study.
- Consider using mixed methods.
- Use constructs and variables (and their variations) that are trackable over time. Make sure your questions are written in a way that will remain applicable over time. Create an organizational plan for keeping good records and tracking.
- Budget more than you need: unexpected setbacks can cost serious money to resolve. The best tool to combat attrition are powerful incentives, which cost money.
- Consider engaging youth participants as co-researchers.

Advice for smaller institutions (with limited funding)

- Before participants leave a program, ask for permission to continue to be in touch with them in the future. Explain why such information is so helpful for programs to have as participants continue their learning/life journeys.
- Create a brief survey that can be sent out each year, asking for updated contact information, where students are now, what they are studying and where they are working, if they have questions or need any help. If they know that their feedback will help the program and staff that they care about, most participants willingly complete a brief 10-minute survey.



Take advantage of the fact that participants might feel like their impact is greater here: their voice is really heard and considered. Our participants have expressed feeling good about their participation like it is a form of community engagement or giving back to the programs they participated in.

What are some of the challenges you've faced related to longitudinal research?

Retention.

Of Participants: Figuring out the best way to reach out and stay in contact with youth.

Of Staff: People on your teams will leave over the course of a longitudinal project - be ready for it!

So. Much. Data.

Collecting and analyzing longitudinal data requires careful attention to "what's most important" and what might change over time.

Tips on how we've addressed these challenges



Build a sense of community for participants as a cohort on a social platform that they all use. For example, many older cohorts of youth use Facebook groups. Create a group with space for them (and you!) to share internship, summer learning and work opportunities with each other. Use this space for study announcements, opportunities, and invitations to complete surveys.



Utilize alumni from the same cohort as a point of contact for others—they may have an easier time staying in touch with their cohort members/have more up-to-date contact info. They can also help push out surveys.



Keep participant contact information updated every year, even if you're not conducting a study or evaluation. Retrospective studies can be built on five, ten or more years later, asking about the influence that program participation had on their personal, educational and career:

- always ask for emails annually (as youth move from high school to college to work);
- keep track of participant name-changes;
- ask for cell phone numbers and social media handles (and permission to contact them via these methods with survey and interview opportunities);
- note the nature of longitudinal research and that you will contact them every year;
- help them stay connected by sharing links to your museum social media and posts, blogs, and papers you've written about the research they are participating in.