Living Laboratory®
Developed at the Museum of Science, Boston

Study Approval Guide for Museums

Introduction

Once you have identified your academic collaborator, they will have at least one (and sometimes more than one) idea for a study that they would like to run at the museum. Although these studies will no doubt be approved by their university/hospital Institutional Review Board (IRB) to *ensure the safety of all participants*, you and your institution may have additional parameters for studies that will *ensure that all visitors who interact with a researcher will have a positive educational experience*. Each museum's mission is different so it is important for your institution to clearly define the criteria you will use to accept or reject studies that scientists would like to run on your exhibit floors.

How are Studies Approved at a University? What is an IRB?

Every study that a scientist would like to run with people needs to be approved by an accredited Institutional Review Board (IRB). IRB's are the committees responsible for ensuring that all studies are ethical and safe for the participants. In order to be granted approval, the scientist must submit documents that explain the scientific relevance and background for the study, delineate all study procedures including target participants (number, demographics) and methods, describe how they will obtain informed consent and protect the privacy of all participants, and list the members of the research team who are approved to run the study.

Approving Living Lab Studies to Maximize the Visitor Experience

Although all studies with University IRB approval would be appropriate *in a laboratory setting,* not all would be appropriate *in your museum or exhibit.* You are integrating researchers into your institution to enhance the visitor experience; as museum staff, you are the experts in what an optimal educational experience might look like for your visitors. It is important for you to determine what study parameters will ensure that your educational mission is met.

You may want to consider bringing together a group of museum educators, internal evaluation professionals and/or other stakeholders to determine your educational goals and your particular study criteria. Some large-scale questions to consider might be:

- ☐ Are there study topics/domains that you are not comfortable integrating in your programming? (e.g., race, religion, etc.)
- ☐ How much time do you want visitors spending engaged in a study? Some studies are over an hour long which may be too long to ensure that they have a positive visitor experience; in most cases, you can negotiate with collaborators to find studies that are of appropriate length.
- ☐ What additional safety parameters will you require that researchers follow? (e.g., parents need to stay within a designated area during the study)

- ☐ What additional educational elements will you require from the researchers that will increase the visitor experience? (e.g., study specific handouts, activity suggestions related to the study, etc.)
- ☐ What limits will you place on researchers wishing to screen for eligible participants? Will you require them to do a "mock" study with any visitors regardless of eligibility, or to provide an alternative educational activity?
- ☐ What additional information will you need from the researchers in order to provide the educational experience for visitors that you are aiming for? (e.g. summaries that will allow you to create handouts for staff/visitors, images of research stimuli)
- ☐ What types of gifts will you allow the researchers to give to participants (e.g., safe for exhibits/facility)? Will you require that they provide these gifts to all visitors who want one (even "non-participants")?

Study Approval Checklist

Below you will find a list of study related documents and some points to consider that may be helpful to you as you decide which studies to integrate into your programming:

- ☐ *IRB Documents*
  - A copy of current IRB approval from the university or hospital (check dates!)
  - A copy of the original IRB application with full study explanation
  - A copy of IRB amendments listing the museum as a testing site, detailing any changes made to the protocol for the museum environment, and providing a museum-specific consent form
- ☐ Consent Form
  - Is it museum specific?
  - Is it short? (no more than 1 page front and back)
  - Does the consent form clearly state safety protocols specific to the museum? *(e.g.* reflects that parents need to be present at all times during the study)
  - Does it include collaborative information? (e.g., states "the research is occurring through the Living Laboratory at [your museum].)"
  - Does the header include the university/hospital logo?
  - Is the museum approved study duration clearly stated? (e.g. states "studies are no more than 15 minutes long")
  - Are questionnaires of an appropriate length to ensure a positive visitor experience? (i.e. no more than 1 page-front only)
- ☐ Summary Document for Museum Study Approval Board that highlights museum specific details as to what is actually going to take place in the exhibit, such as:
  - Which populations will you be researching?
  - How many participants will be run?
  - How will they be selected?
  - Will there be videotaping or audiotaping?

☐ Brochure/Insert template, including:

- *Research Question*
- *Introduction/Previous Work*
- *Explanation of Study*
- *Conclusion/Predictions*
- *Stimuli Picture*
- *Researcher Contact Info*

Other Study Considerations

☐ Research stimuli and instructions/questions are not disruptive or upsetting to children, parents, museum staff/volunteers, or other non-participant visitors at the museum

☐ Are parents/caregivers able to observe the entire study taking place? (e.g., if they are required to fill out surveys throughout the whole study, if children are taken to a separate room, etc., parents will be unable to see the study in action).

☐ How do you ensure equity among participants and non-participants? (e.g., Researchers may offer only paper-based gifts (*e.g.,* stickers, certificates) to participants as thanks for completing the study).

☐ How will researchers interact with visitors who cannot give informed consent or are not eligible to be participants in the formal research study? (No information should be collected about any visitors who are not formal participants, but all visitors should be allowed to learn about the study).