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Instructions for the Learning Opportunities Grant Evaluation Logic Model Worksheet

I. Introduction

As you know, each IMLS grantee provides IMLS with final financial and narrative reports, and many grants also require interim reports. These reports have always described all significant activities and services supported by a grant, along with their audiences and the museum's progress towards achieving project goals. Your final narrative report should include those items of information, as should any interim report you provide. Because it is so critical to know the results of museum services in the lives of their audiences, IMLS also requires each Learning Opportunities Grantee to evaluate and report at least one outcome for at least one project supported by your 2003 grant.

We know that many grants will cover multiple projects or initiatives, and that many outcomes can result from each. Your outcome measurement is only required to address one of these, although we hope you will find this model helpful for other projects and museum services.

IMLS does not minimize the challenges of evaluation. Formal program evaluation is a profession that takes substantial training and experience. At the same time, we believe the expectation that museums will show their value, in part, through results for audiences will only increase for the foreseeable future. We believe most capable museum professionals can develop "good enough" outcomes information for management, audience focus, and communication if they seek input from others, think critically, and use their ample common sense. This element of our Learning Opportunities Grants gives our grantees the opportunity to build capacity for outcomes-oriented planning and measurement with assistance from IMLS.

IMLS will use your report to communicate the value of your project to our audiences, and to demonstrate the importance of federal museum funds to the public. We know that detailed planning for outcomes and evaluation is new to many Learning Opportunities Grantees. A number of resources are included in your award package to help you meet this responsibility. They include the following:

1. Instructions for the Evaluation Logic Model Worksheet.
2. Sample completed Logic Model.
3. Glossary of Planning And Evaluation Terms.
4. Schedule for finalizing your evaluation plan.

All of these materials are available on IMLS's Web site, http://www.imls.gov. We ask you to provide your resulting plan in electronic form. If you do not have access to word-processing technology or to an online connection, or if you need this information in a word processing format other than Word97-2002, please call your program officer, Christine Henry, at 202-606-8687.

You are not required to use IMLS's forms. The forms are intended to keep responses short and to the point. You don't need to use full sentences. For the purpose of authorizing your project evaluation plan, we don't need eloquence, only information. If you choose to create your plan in a narrative document, please follow the sequence of questions in the forms and please label the elements of your plan using the numbers and language in the worksheet and instructions.

As you develop your logic model, IMLS will provide technical assistance by telephone and electronic mail at your request. We will review your draft plan and provide suggestions if we think it can be made stronger or simplified. We will work with you to create an evaluation plan that is practical and relevant to your needs and to IMLS's. You will be expected to revise your draft and return it to IMLS for final review and authorization.

IMLS will not use any information in your plan to rate or rank your project or performance in any way. The plan will be kept with your grant file, but it will not be shared with anyone other than IMLS project staff and project consultants without your permission. We may wish to share some plans as models for future grantees. If so, we will ask for your authorization, and we will remove all identifying details before sharing your logic model.

Using an Evaluation Consultant

Many larger museums employ evaluation or visitor studies professionals, and some museum projects use consultants to plan and conduct their evaluation. If you are one of those museums, you may have done this planning in preparing your Learning Opportunities application. If that is the case, of course you should select one of the outcomes you have already identified for this planning process. Please just transfer the pertinent information from your application to this format, and follow your original plans.

Since IMLS assumes all grants will budget for evaluation, your project may plan to use a professional consultant to help you plan your evaluation at this point. If your budget was developed with that assumption, please do so by all means. Your consultant will work through this decision-making process with your project staff. Your consultant can also discuss any questions with the staff above. When you have made all of the needed decisions, transfer the pertinent information from that process to this format, and follow your plan.

Questions About Your Learning Opportunity Grant Evaluation Planning Process

These instructions have assumed that Learning Opportunities Grantees will develop their evaluation logic model without such expertise on staff or from a consultant. If your museum has never formally evaluated the outcomes of your services, this will be a powerful learning experience. While we cannot include all of the information you might need in these instructions, we will provide you with advice and assistance by phone and electronic communication.

If you have questions as you complete your logic model, contact:

- Claudia Horn, 301-963-5953 (Monday-Friday, 9:00-5:00 ET), c.horn@starpower.net (*after October 5, 2003*) or
- Karen Motylewski 202-606-5551 (*Monday-Friday, 9:30-6:30 ET*), kmotylewski@imls.gov (*after October 2, 2003*)

If you have questions about your grant in general, contact

- Christine Henry, Program Officer, 202-606-8687, chenry@imls.gov, Institute of Museum and Library Services, Office of Museum Services, 1100 Pennsylvania Avenue, NW, Washington, DC 20506.

II. The Evaluation Logic Model

What is a Logic Model and How do I Create One?

This structure is called a logic model because it provides you with a map of the key elements in planning an effective project, making the logic (or a problem in the logic) of their relationship to one another clear. A logic model is a flexible, dynamic structure for checking your assumptions about a project, developing consensus among project partners about goals and roles, and clarifying both your project goals and what information you will need to evaluate its effectiveness.

This is a process, not a product. Be prepared to think about the details of your Learning Opportunities Grant project, and to ask questions of others involved in planning, implementation, and evaluation. Unless you created a project logic model in preparation for your grant application, do not expect to fill in every element in one sitting, or to fill in every element only once. The need to review all of your assumptions and decisions in the context of all of the others, and to modify many of them more than once, is intrinsic to the process. If you have questions about terms, see the Glossary of Planning and Evaluation Terms or IMLS's NLG Project Planning: A Tutorial (available at http://e-services.imls.gov/project_planning/).

Remember, this plan and the outcomes-based evaluation you will do based on the plan only need to represent one element of your grant and your grant reports to IMLS. For the balance of your grant activities and reporting, you may follow whatever evaluation procedures you routinely use. Of course, if you would like to use this model for other portions of your grant, we encourage you to do so, and to bring any questions you may have in the planning process to our program staff.

IMLS understands that this planning will require time and effort on the part of museum staff, but evaluation is an essential part of all IMLS-funded projects. We expect the costs of evaluation to be included in budget planning for every grant. In the case of 2003 Learning Opportunity Grants, we permitted applicants to omit the step of evaluation planning in the application phase, and have replaced that pre-grant investment with this process for successful applicants. The work that follows is significant, but it models what we hope all applicants do for any project. We ask you to do it formally for only one aspect of your grant, but of course we would greatly value information about the objective outcomes of all your grant-supported services.

III. Submitting Your Evaluation Logic Model

You may e-mail your evaluation logic model to Program Officer Christine Henry at chenry@imls.gov, or you may ship a disk to her at the IMLS address above. All first-class and Priority mail sent to IMLS is put through an irradiation process, which results in lengthy delays and potential damage to mail. Please consider using commercial delivery services.

If it is not possible for you to send an electronic version of your logic model, please contact Christine Henry at 202-606-8687, chenry@imls.gov, to arrange an alternative.

IV. Authorizing Your Evaluation Plan

Many sections of the logic model are marked optional. IMLS will not use them in the authorization of your evaluation plan. They are included for your convenience and review. IMLS will authorize grantee evaluation plans based on the following criteria in the judgment of IMLS staff:

- The outcome identified for measurement in Section 8 represent learning for individuals in the target audience; "outcome" has not been confounded with services, programs, products, or other mechanisms for creating outcomes.

- The selected outcome is logically related to the selected audience, need, and proposed museum service.
- The chosen indicator is concrete, observable, measurable, and logically related to the outcome and museum service.
- The group to be included in evaluation, the sources of information about the indicator, the evaluation timetable, and the amount of success the project hopes to see are all logically related to the audience, the museum service, the desired outcome, and the indicator.

V. Choosing A Project for Outcome Evaluation

Learning Opportunities Grants are intended to help museums use their collections and services to strengthen learning in the museum, in schools, at home, and in partnership with other community organizations.

At least one of these strategic goals is included in every funded application:

- To build public access
- To expand educational services
- To reach families and children
- To use technology more effectively to reach these goals.

All of these goals have outcomes at their core: new and different people will be use museums, or regular visitors will participate in museum services more often than before; museum services will produce new or strengthened results for their users or participants; families will be strengthened or enriched through museum services, and technology will help museums achieve all of these visions.

If your application described only one initiative, that will be your focus. Since many proposals combine multiple activities and services, most grantees will need to choose one for this planning process. These instructions use the terms project, program, product, and initiative synonymously, but we most often use "project" because many IMLS grantees use it to describe the focus of their IMLS funding. You may substitute the term that is most appropriate or comfortable for your grant.

Choose the one project for which you will measure and report outcomes in your IMLS final report, using the following guidelines:

- The project is directly supported using Learning Opportunities Grant funds, or is made possible because the museum has received those funds.
- The project will serve a specific target audience that shares key characteristics such as gender; age; ethnic, cultural, geographic, or other referent or orientation such as school grade; professional responsibility; or education level.
- The project's target audience shares a validated need that it is important to your institution and its stakeholders, including the audience.
- You intend the project to help your audience gain a concrete, recognizable knowledge, skill, attitude, behavior, physical condition or status, at least in part through using or participating in the project services.
- The museum will find it useful to share information about the project with others in the field, its community and other stakeholders, or potential supporters of future projects.

If none of the projects you plan to support through your Learning Opportunities Grant or that will be made possible because you received funding through Learning Opportunities meets all of these criteria, please discuss your grant with Karen Motylewski (kmotylewski@imls.gov).

VI. Completing the Evaluation Logic Model Worksheet

Contact Information for Evaluation Planning

Please provide the basic information that will allow IMLS to track your evaluation planning and authorize your evaluation plan. As you know, the plan is required for every Learning Opportunities Grant. If you do not complete the plan in a timely way, you may compromise your ability to draw down IMLS funds. We will track all grants to make sure this requirement has been met.

Optional and Required Sections

Many sections of the Worksheets are marked "optional." You may choose to omit them and provide us with an abbreviated plan for authorization. Projects in a small number of applications for Learning Opportunities were planned meticulously in the context of intended outcomes. For those grantees, this will be an easy task. If you believe you are one of them, please feel comfortable taking the option of filling in your contact information and Sections 1, 4a, 4c, 4e, and 9a-f (all marked "required"). You may discuss this option with Claudia Horn or Karen Motylewski if you are unsure about your decision.

The planning you are about to begin is not intuitive to most museum (or library) professionals. We urge you to consider carefully before you choose to provide an abbreviated plan. While it might appear to save time and resources, in IMLS's experience, projects that lack the planning represented by this process often fail to provide convincing evidence that they have created value for their audiences. Even more sadly, they may not produce the learning results they envisioned and promised, and may never know why.

You may choose to leave Sections marked "optional" blank, but we strongly recommend that you think through your answers to the questions, even if you do not write them down. Sections that are not marked optional should be completed by any grantee that has not chosen to submit an abbreviated evaluation plan.

1. What is the title of the LOG project whose outcomes you will evaluate? [Required]

When you have chosen the project you will evaluate for Learning Opportunities, enter the title here.

2. What partner institutions, if any, are involved? [Optional]

This section is optional, and may not pertain to your project. A partner institution is another unit of your parent organization (e.g. an academic department) or another organization that will share responsibilities for your project. Examples include a library, a school department, a professional association, an individual class, or a community organization. If you have a partner or partners, those organizations are important stakeholders in your project decisions. Remember to consult them and to keep them informed about the project and your decisions. If your project has no partners, leave this section blank and move on to Section 3a.

3. Stakeholders/Influencers [Optional]

3a. Who are the program's key stakeholders? [Optional]

This section is optional, but we believe it will be helpful to you in developing both your project and your evaluation plan.

Stakeholders or influencers are people and organizations whose opinions, policies, and importance to your museum may influence your decisions about your project. For example, if you are developing a project to help Head Start teachers include hands-on science activities in their classrooms, Head Start and the teachers who make up your target audience are stakeholders. In almost every project, stakeholders include the project's funder, your staff, and governing body, your partners, and your participants or users. In the Head Start example, parents of Head Start students in the community are stakeholders, because their positive or negative values and ideas about science (or other significant common characteristics) may help direct your priorities or approach. We have filled in information about IMLS, because we are an stakeholder in every Learning Opportunities project.

Consider who the two or three most important stakeholders for your project are besides IMLS, and enter them here. Of course you may add as many stakeholders as you like, but for this purpose, the two or three most important should be sufficient.

3b. What will they want to know about your project participants' outcomes? [Optional]

This section is also optional, but the answer to this question will be important to your decisions about what outcome to measure, and how to measure it. We are committed to strengthening museum service to classrooms and to children and parents, to expanding museum experience to a wide spectrum of people across communities and the nation, and to developing museum resources to support learning at all ages. Those interests color the information IMLS will find most valuable about our funded projects, and in turn suggest your choices for projects, evaluation, and reporting.

Other stakeholders have other key interests. Parents in your community may use information from your evaluation to decide whether to encourage their children's participation in your services; teachers and principles may use the information to decide on field trips or other activities for their students; funders may use it to identify your museum as capable of supporting their mission. Partner organizations may use evaluation findings to decide to approach you as a resource for their audiences; your staff or board may use it to expand good programs or improve ineffective ones. Museum professional associations might use it to identify speakers for conferences.

Enter a brief note or list of the key information each of your important stakeholders will want at the end of your project and/or their purpose for having the information. You will want to consider these needs as you decide what outcome to evaluate and how to evaluate it.

4. What is the purpose of the project? [Required]

This is a brief summary of your intentions for one Learning Opportunities Grant project, for one significant target audience. It will include at least one learning goal—something your target audience will know, feel, think, believe, do, say, or be, in part through participating in your project or using its product. You may choose to articulate it in very general terms (K-4 teachers will improve history teaching) or in outcomes language (K-4 teachers will regularly use active, object-based learning strategies in the classroom).

Your audience may be museum staff or other intermediary users (e.g. classroom teachers, curatorial staff, docents, etc.) who facilitate learning by end users, or you may choose to focus on end users themselves (e.g. middle school students, Web site visitors, parents of toddlers, etc.). This purpose statement is the first step in focusing your project goals. It will become more concrete as you articulate additional elements of the program and review each of your decisions in the light of later ones.

4a. What needs did you identify that led you to create the project or product? [Required]

Any planning for outcomes starts with clearly identified audience needs appropriate to your institution's mission and resources. These factors combine with audience interests and other characteristics to provide a base for realistic and achievable goals, and for the design of projects and programs that are customized to meet specific audiences' needs effectively.

Needs are not necessarily deficits. You may see a need for entertainment, enrichment, or elaboration of learning that's already present. Learning crosses many dimensions–cognitive, affective, social, physical, plastic or aesthetic, among others. Learning may describe personal experience, professional development, formal education, a hobby, a relationship, increased pleasure, behavior and choices, and many additional domains.

IMLS sees any and all of these as valuable and valid. Our belief, though, is that showing the public value of the work we fund requires grantees to choose at least a few concrete outcomes to represent the extent to which a project achieved the learning goals suggested in its application. This does not invalidate other achievements or goals, intentional or serendipitous. It simply provides objective evidence for progress towards a museum's vision for its audiences.

> Example. As an example, a high-poverty county in Florida finds that many fourth-grade students have trouble answering simple science questions. Their schools do very poorly relative to other counties against Florida's standards for science learning.

The need most often identified in this scenario is to increase 4th-grader knowledge and interest, but the most important time to influence these factors probably comes in early childhood, where building blocks for formal schooling are formed. Studies show that that many of those students have no positive early family or play experiences to interest them in science or to provide basics for formal education to build on. Eighty percent of the county's children participate in Head Start, and Head Start curriculum standards include science concepts, but in this county most Head Start teachers are women without much science background themselves. They have limited interest or knowledge in any science field, and they are intimidated by the idea of creating experiments for their classes—most don't bring science into the classroom at all.

In this example teachers have the key need. They need hands-on science education in core areas like chemistry, physics, and zoology. They also need ideas and resources for making these subjects fun, they need increased interest and confidence, and they need a comfortable science vocabulary to help them shape their students' early experience in the science arena.

> Tip: In an outcomes- or audience-focused project, needs are never activities or services. Your audiences enjoy and benefit from many, many ways to learn, but nobody outside the museum needs a traveling exhibit, a workshop, a Web site, a curriculum or any other specific museum service or activity. A need is not what you've decided to offer your audience. It's the learning experience that service could provide.

What need led to your Learning Opportunities project idea? Summarize it in a short paragraph here.

4b. What information did you use to identify this need? [Optional]

Although this step is optional, you may find it useful to note some of the sources you used to identify the need for your project. Many ideas for projects originate in staff interests or experiences. Even great ideas may not work in your setting unless you validate them in the context of your museum, community, and audiences. In the Head Start science example, information came from standardized testing, the experience of Head Start administrators, and studies of community demographics. It might have come from media coverage of education issues, a parent or teacher survey, a state mandate based on research, or many other sources. What is important is that your assumptions about needs be checked against sources who know your target audience well.

4c. What group of people has that need? [Required]

Your museum's potential audience probably spans toddlers to seniors, people from many language and cultural groups, people who use the museum often and people who have never been through your doors, people who have extensive leisure time and people who can never get to the museum during normal operating hours. Your community almost certainly includes diversities of many other kinds. Your effectiveness in reaching an audience so you can help address the need you've identified depends heavily on the extent to which its services are customized for that target audience.

Of course many museum projects have multiple audiences. You may want to think about the ways in which your project or product could be tailored to be most attractive or most effective for groups that make up the largest or most important segments of your audience. In the example we're building, potential audiences include Head Start teachers, 3-5 year-olds from families below the poverty line, and parents or caretakers in those families. If the desired outcome for each of those groups was the same–to begin to make connections between every day experiences and science, would you approach each group exactly the same way?

Consider the specific group or the multiple groups that you envision reaching through this project. Choose one group that is important for your Learning Opportunities Grant to reach in terms of its project description to IMLS, the significance of its need, its impact on your community, or in meeting the mission of your museum. Enter it here.

4d. What general characteristics of that group will be important for project design decisions? [Optional]

Although this section is optional, it is key to effective programming. Before you can customize an educational experience, you need to consider what major characteristics of your audience might color their willingness or ability to use your services. Other characteristics might create a barrier to the learning your museum wants the audience to experience.

While every individual is different in many respects, most groups of individuals share at least a few characteristics that impact their experience of your museum services. Some possibilities to consider include your target audience's typical age, gender, education level, interests, learning style, schedule, economics, mobility or access to transportation, language, preferred information media, experiences, habits, values, belief systems, and customs. Imagine a typical person from your target audience in your project setting

List some of the factors or characteristics in your target audience that you need to accommodate to reach that audience and produce the learning you hope for. What characteristics does your service need to draw that person in and enable them to participate fully?

4e. What services will you provide to address the need? [Required]

This is the section in which you briefly describe the project service or suite of services the project will provide to create the outcomes you intend. Unlike activities (see Section 6), defined here as the design, implementation, and management tasks that a project requires, services directly touch audiences, users, or participants. Your grants fund services that are too diverse and innovative for IMLS to list here, but they typically include written, graphic, or other physical or digital products such as curricula, virtual exhibits, and workbooks; physical or virtual experiments or laboratories; teaching, work opportunities, internship, coaching, and mentoring; extended, immersion, or intensive learning experiences; classroom or gallery programs; and supervised creative or construction projects.

In the Head Start example used earlier, a museum will provide workshops to train teachers in basic science subjects and in the use of kits for object- and inquiry-based learning for pre-schoolers. The museum will also provide science learning kits for classroom and at-home use. The workshops and the kits are services. All of the work that goes into creating and offering the workshops and kits falls in the category of "activities."

Tip. It is not important to distinguish perfectly between activities and services. The point is to list the services you will provide, as in "teacher training" and "classroom take-home kits," and to make sure all of the administrative tasks that your project needs to be successful are in place or planned.

4f. What will your audience gain that will address their need? [Required]

This is where you will articulate the outcome or outcomes your project hopes to create for your users or participants. Outcomes are a gain or change for a person that happens, usually only in part, through participating in the services or using the product you offer. Outcomes are benefits to individuals in the form of new, increased, or altered knowledge, skills, behaviors, attitudes, status or life condition.

Remember that your project may not be intended to fill a gap or correct something that is "wrong." Many projects (needs) are intended to enhance experience or provide enrichment. Here are some definitions and examples. These are not limiting or exhaustive–they are only intended remind you of some typical outcomes museum services hope to produce:

Outcome	Definition/Characteristics	Examples
Knowledge	Something a person knows; cognitive gains; facts, concepts, principles, intellectual constructs	• Knows characteristics of Impressionist art • Knows learning needs of 2-4 year olds • Knows names of major constellations
Skill	Something a person can do; expertness in physical or other actions	• Can distinguish an Impressionist painting from an Expressionist painting • Can capture a 4-year-old's interest in science • Can use a telescope to view planetary features
Attitude	Something a person believes, thinks, or feels	• Believes art enriches daily life for all people • Thinks pre-school learning is important • Values the natural environment, is concerned about pollution

Behavior	Something a person does; a regular course of action or reaction	• Paints as a leisure activity • Encourages pre-schoolers to experiment • Uses a telescope on most clear nights
Status	Something a person is, relative to others; formal or informal position	• Sculptor, certified teacher, Head Start student, astronomy major • Full-time student, citizen, parent, registered voter, museum member
Life condition	A person's physical condition, usually related to health	• Non-smoker, diabetic, visually challenged, dyslexic, healthy

It is not important to fit an outcome into the "right" category. It is important to note that outcomes are results for individuals. For the purpose of outcome-based planning and evaluation, an outcome is usually a short- or medium-term phenomenon that could, if added to other knowledge, attitude, behavior, or skill; sustained over time; and combined with similar outcomes for other people, lead to larger or more profound differences for a person or a community. Those larger, aggregated outcomes become impact.

Of course projects may have many outcome goals. Many kinds of very desirable, but unanticipated, learning or change may happen in the context of a project. Outcomes-oriented planning does not negate or invalidate those achievements. It only asks you to identify a quantity of desirable, observable phenomena to measure your progress towards a vision. The concrete, objective information you gain helps you monitor the effectiveness of your project design, correct problems you encounter, and communicate the value of the project beyond your staff and participants.

IMLS suggests that grantees focus on outcomes at this level because they are concrete, achievable, and demonstrable. In our experience, applications often describe museum results in visionary terms ("children will learn to learn," "participants will make history personal," "community capitol will increase"). Reviewers recommend projects based on the quality of the idea, the evidence of organizational competence and planning, and the hope that the project can make progress towards the desirable vision. When the grant comes to a close, however, many projects have no way to measure that progress, other than the nature and of their activities, and how many people chose to sample the service.

Change starts here. Consider what success will look like for your project's participants at the conclusion of the experience you provide. What will they know, feel, think, be able to do, or actually do if your learning experience works for them? How will you recognize the gain they've made through participating in your project or its product? Choose one key outcome that will represent your project's success for your audience, and enter it here.

You may, of course, identify and measure more than one outcome for your Learning Opportunities Grant, but only one is required for this evaluation process.

5. What are the key project inputs? [Optional]

This Section is also optional for your Learning Opportunities evaluation plan, but important in a comprehensive logic model. Most project final reports describe the key resources that made the project possible–staff, technology resources, partner contributions of expertise or other resources, key existing museum materials or products. These elements of project planning are inputs–the resources expended to carry out a project. This section allows you to confirm and validate the project's resource needs and to create a reminder of important elements you will want to include in describing the project at the grant's end.

Here is a list of possible inputs. They are not exhaustive or limiting. Few projects will include them all, or want to mention them all. They are provided only to help you think your project through. If your project uses significant resources not included here, feel free to add them. If an input fits a different category in your context, feel free to move it. If an input fits more than one category (e.g. you have staff, volunteers, and contracted services for "design"), you may choose to specify the area of responsibility for each or to use the term only once. IMLS will not use this Section to authorize your evaluation plan. It is included for your convenience and because it is part of a comprehensive project plan.

- Personnel (staff, museum or partners): curatorial, education, development, technical, public relations, administrative/clerical/secretarial, supervision, maintenance, docent/interpretive/enactment, preparation, registration, security, design, editorial, facilities management, interpretation, veterinary, horticultural, archival, library, ____________
- Personnel (volunteers, museum or partners): docent, enactment, interpretive, mentoring, visual or hearing interpretation, language interpretation, student, expert teacher or demonstrator, medical, transportation, ______________ (and see above)
- Services (donated or purchased): technology, connectivity, facilitation, planning, preparation, design, printing, production, recording, photography, catering, cleaning, space, facilities, construction, security, architectural, landscaping, analytical, experimental, childcare, transcription, documentation, transportation, research, musical, theatre, ______________
- Materials and equipment (donated or purchased): computers or other technology, software, collections, supplies, refreshments, educational, storage, exhibit, costume, domestics, cleaning, construction, analytical, instrumentation, maintenance, security, transportation, _______________
- Funds: grant, budget line, donation, gift, earned income, registration, participation fee, gate fee, credit, _______________
- Facilities (museum, purchased, or donated): meeting, planning, library, research, exhibit, classroom, laboratory, auditorium, theatre, studio, kitchen, dining, residential, temporary housing, _____________
- Other ____

6. What key administrative activities will the project need? [Optional]

Like Section 5, above, Section 6 provides a structure for confirming and validating project requirements. Section 6 is also optional, but many projects find this an important opportunity to consider whether all of the pieces needed to support a project and make it as effective as possible are in place.

Activities are the tasks a project requires from start to finish. They draw on inputs, but differ in representing the actions people or resources provide to support the project. Typically activities generate a very long list, while services comprise a small number of phenomena that touch participants' experience directly.

IMLS projects span an enormous range of goals and designs, so we offer only a sample of possibilities, not an exhaustive or limiting menu. They are provided only to help you think your project through. If your project requires significant tasks not included here, feel free to add them. If an activity fits a different category in your context, feel free to move it. If an activity fits more than one category (e.g. if exhibit, Web page, and workbook production are all required), you may choose to specify each task, or to use the term only once. We recommend you list each separate major function the project requires. IMLS will not use this Section to authorize your evaluation plan; it is included for your convenience. Here is a list of common activities.

- Administration: fiscal, reporting, contract management, personnel, purchasing, contracting, hiring, resource management, logistics, publicity, scheduling, participant recruitment, facilitation, negotiation, communication, security, collections management, registration, preparation, personnel training, staff management, resource maintenance, ________________
- Project design: programming, set-up, exhibit design, Web design, curriculum development, writing, editing, graphics, labels, security planning, production, printing, preparation, shipping, piloting, testing, review, revision, __________________
- Project implementation: exhibit preparation, resource production, recruitment, registration, audience care, security, supervision (personnel and participants), mentoring, transportation, technical assistance, training, catering, clean-up, maintenance, equipment maintenance, restocking, audio-visual support, speaker support, transportation, participant communication, problem analysis and correction, communications, public relations, mentoring, teaching, training, distribution, loans, _________________
- Evaluation: design, development of tools or instruments, data collection, data analysis, interpretation, reporting, decision-making, staff feedback, _________________
- Other ____

7. What are the anticipated outputs of the project? [Optional]

IMLS wants to know about both the performance and the results of your project. Like Sections 5 and 6, Section 7 is optional, but completing it provides an opportunity to review your design in the light of all of the other decisions you have now made. Outputs are the quantities of services, activities, products, users, participants, processes, or other measures for the grant's productivity. Outputs fall on the performance side of the "performance and results" dimension. In outcomes-oriented planning and evaluation, outcomes represent the results of a project.

Most projects report only the outputs directly related to project services. Here are some examples of outputs museum projects might mention. Again, these are not limiting or prescriptive. They are only intended to give you some ideas and to allow you to refine goals for the scope of your project.

- participants
- users
- visitors
- items digitized
- Web pages designed
- workshops provided
- lectures given
- programs produced
- programs screened
- exhibits provided
- objects exhibited
- traveling exhibits
- classrooms served
- field trips
- courses provided
- staff trained
- free visits provided
- memberships given
- venues served
- mentors provided
- in-service trainings
- artists participating
- manuals printed
- manuals distributed
- Web log statistics
- kits produced
- teachers trained

Note that all of these items can be described with simple numbers–"324 participants," "35 Web pages designed," "1,200 objects digitized"–outputs are almost always simple counts of things.

Consider which of the records you already keep could be used for your Learning Opportunities Grant final report. Most outputs can be reported on the basis of information collected for ongoing project management.

8. What key outcome have you designed your project to have? (What outcome will you measure?) [Required]

This is the most important section of your plan for understanding the extent to which your Learning Opportunities Grant achieved the outcome you intended. It will provide the basis of objective, measured results to communicate your museum's success. IMLS is confident in the quality and value of Learning Opportunities projects you proposed, and we will use your reports to share your valuable work. At the same time, many uncontrollable factors impact museum projects, requiring adjustments and corrections. Some projects will inevitably be less effective than you hoped. In that small number of cases, outcomes measurement offers ways to understand how you can strengthen your program or project in future. Sharing that information will help other museums that may be considering similar projects.

<u>How does outcome-based evaluation differ from research?</u> We urge grantees to make evaluation meaningful, but to avoid making it a burdensome or overambitious. Outcomes-based evaluation, as IMLS defines it for management decision-making and reporting purposes, differs from "research." in the following ways:

- It documents contribution, not attribution. There is no intention to prove that the project evaluated is wholly or uniquely responsible for the outcome; the goal is to show a credible, probable relationship between the services and the result. We want to be able to say responsibly and credibly: "This project showed the following outcome for x% of n participants with the project's target need. Research evidence suggests that if the outcome is sustained, participants are likely to benefit in the following long-term way."
- It is satisfied with "good enough" information. It is not intended to compare one program with another program with similar goals but different characteristics, or to compare similar programs in different institutions. It is only intended to provide information to support program stakeholders and managers communication and decisions about continuing, expanding, modifying, or discontinuing the evaluated program itself.
- It does not replace or substitute for research. Project design should be based on good research, from your own studies or the relevant literature. If your museum hopes to show that it is uniquely responsible for outcomes, or to compare the results of your project design with the outcomes of another program, your evaluation plan will need the sampling, statistical, and other protections against biased findings that characterize good research. If your project has such goals, please contact Karen Motylewski (kmotylewski@imls.gov) to discuss your evaluation needs.

8a. Outcome 1

<u>Tips for choosing outcomes</u>. Here are general guidelines for choosing an outcome or outcomes and the indicators that will allow you to know what progress you and your audience have made towards meeting the need you identified:

- Choose an outcome or outcomes that are meaningful to your target audience and your museum and logically connected to the services you will provide.

- Choose an outcome or outcomes that are readily observed and simple. Do not use an outcome statement that includes the word "and."
- Choose an outcome or outcomes that will occur immediately or in the medium-term (within your grant cycle).
- If possible, choose an outcome or outcomes for which information available from existing sources can be used to provide data about your indicator. This will help you avoid creating a large data collection initiative.

Outcomes can be immediate, medium-term, or long-term. If you want to show long-term outcomes, you will need to collect information from participants months or even years after they use your museum's service. IMLS grant performance occurs within a one- to three-year span, so such data gathering is impossible. For the purposes of your Learning Opportunities Grant, please focus on an immediate, short-term outcome, or at most a medium-term one.

<u>Sample Outcomes</u>. In the example we used above, teachers need hands-on science education in core areas like chemistry, physics, and zoology. They need ideas and resources for making these subjects fun, they need increased interest and confidence, and they need a comfortable science vocabulary to help them shape their students' early experience in the science arena. Any of the following would be a reasonable, significant, and desirable outcome for the training and resource project designed to meet that need might be:

- Teachers use more science activities to support cognitive development in the classroom.
- Teachers are more confident using day-to-day examples of science in the classroom.
- Teachers use an expanded accurate science vocabulary.
- Teachers accurately connect classroom events with basic science principles.
- Teachers draw on their personal experience of simple experiments to create classroom activities.
- Teachers cooperate with library staff to find good materials to communicate science ideas to their classes.

Of course there are many equally good alternatives, as there will be many options in your project.

Note that all of the statements above focus on something the target audience will have, know or do, not on services the museum will provide to help create or strengthen them. They use active, concrete terms that are readily shown by a variety of actions or reports of the teachers. They do not include "and."

> <u>Tip</u>: Some outcomes increase a knowledge, behavior, attitude, or skill. Others just produce a desirable condition related to a project's overarching goal–in this example, helping teachers include science in their classrooms on a regular basis. If you choose an outcome that includes the word "increase," you may need to document the situation before your project, so that you can compare your outcomes with the earlier state. If your project just hopes participants or users will do or know something differently, phrase your outcome to reflect that intention.

> <u>Tip</u>: Do not choose a passive result such as "teachers will have kits to use for…" or "workshops will be provided to…." Remember that the kits and the workshops are only mechanisms that will help the teachers include science activities in teaching. If they're poorly designed for this audience, or for these classrooms, or if very few teachers participate, the project may not produce the outcome this museum hopes for. Although they are offered as a result of the project, they're outputs.

Review the need, audience, services, and general goal you have identified earlier. Remember that while IMLS would be very interested in additional information, you need only choose one outcome to evaluate. That outcome or outcomes should be logically connected your previous decisions. Enter the outcome or outcomes you will measure and report to IMLS to show the value of your Learning Opportunities Grant project to your audience.

8b. Indicator(s) [Required]

You may find it helpful to read Sections 8b-f before you start to make choices in this section. All of these decisions depend closely on one another. Do not expect to simply "fill in the blanks." You will need to reflect on each decision in relation to your others, and you will need to make changes to previous decisions as you progress. Remember this is a process, not a product. No logic model or evaluation plan is perfect. Conditions and circumstances change, altering your earlier decisions, and every project has many unknowns. IMLS completely understands this. When you have done the best job you can, and have discussed your decisions with other project staff and partners, your plan is complete.

Qualities of good indicators. Indicators are based on measures that can provide information about the extent to which outcomes have been achieved. For the purposes of Learning Opportunities projects, a good, clear measure has several important qualities:

- *A good indicator is readily observable.*

  Poor example: Participants know how to search the Web.

  Good example: Participants can answer 2 questions of their choice citing 2 reliable information sources from each of 2 different search engines using (4 sources in all) within 30 minutes.

  In the example above, "Know" and "search the Web" are nebulous. It would be hard to determine if a student interacting with a computer "knew" how to search, unless the evaluation created observable criteria. Here those are 2 sources for each of 2 questions, using 2 search engines in a target timeframe. This would be observable in a report by each student. Elements of efficient search skills include the ability to match different search engines to the nature of the needed information, and constructing good search terms and strategies. The time limit provides some parameters to "skill" or "ability."

- *A good indicator is concrete and measurable.*

  Poor example: Teachers make history lessons interesting by using primary source materials.

  Good example: Students complete 100% of history assignments in the 2 months following the teacher training program.

  In this example, "interesting" is undefined, and teachers may not be able to be objective about the extent to which their teaching is interesting to students. Student interest could be measured by asking their opinion, but that is also subjective, and may be based on different criteria by each student. The rate of completion is wholly objective and arguably related to interest. As a bonus, assignment completion is a part of normal classroom record-keeping.

- *A good indicator usually occurs in close proximity to the time of the service.*

  Poor example: Children become life-long learners.

  Good example: Children apply 4 principles to identify Web-based sources of information for topics that interest them

  The longer the delay between your program and the outcome, the greater the possibility that unrelated factors were responsible. "Life-long learning" is not defined, and may take years to demonstrate. Your evaluation will have significant difficulty showing this outcome. The ability to apply 4 criteria to choose sources of information you will enjoy will be useful across ages, topics, and contexts. That is arguably a fundamental tool related to life-long learning.

Structure of an indicator. A strong indicator has the following essential components:

- *Who*: The target audience. This is the group whose need led you to design and offer the program.
- *What*: An observable phenomenon (action, characteristic, condition, etc.). This is the specific condition, status, skill, knowledge, attitude, or behavior that represents an individual's gain of the intended outcome.
- *How much*: A quantity or measurement. The amount and/or time frame that represents the level of performance that will distinguish individuals that did not have the outcome from those who did.

Sample indicators. Here are a number of sample indicators broken into their essential components:

- Students complete 100% of history assignments in the 2 months following the teacher training program. Who? Students. What? Complete history assignments. How much? 100% of assignments in 2 months following teacher training.
- Teachers use activities included in MESS Kits at least once each week in the two months following their 3rd workshop. Who? Teachers. What? Use MESS Kit activities. How much? Once each week in two months after workshop 3.
- Teachers' confidence in pointing out examples of science in ordinary classroom activities increases at least one level after workshop 1. Who? Teachers. What? Increase their confidence about pointing out examples of science in the classroom. How much? 1 level (or more) following workshop 1. Here the "instrument" that will measure the change in confidence is implied by specifying the exact measure–a 4-level scale in which the levels are "no confidence," "a little confident," "somewhat confident," or "very confident." Your indicator may or may not include this component.

All of the indicators above have the three basic components–who you hope will have the outcome; what phenomenon you will use to know the extent to which each individual "got" the outcome your program intended; and how much of the phenomenon you need to see before you will consider that an individual has the outcome. The "thing to be measured" and the "amount by which it will be measured" are the measures for the indicator.

Tip: An indicator does not need to be visionary or ambitious, although you can choose to make it so if you believe your project can really achieve it. For many outcomes, and for many audiences, increase or advancement may be gradual and progressive, one small step at a time. It is usually wiser to choose smaller scale indicators for immediate measurement, and to identify larger, more ambitious indicators for medium or long-term follow-up evaluation. Remember too that the longer term evaluation may need to make use of research methods of sampling, controls, and statistics to make a compelling case for your project's contribution.

Tip: Some indicators look for an increase in a knowledge, behavior, attitude, or skill. Others just look for a desirable condition related to the outcome. If your outcome wants to show an increase, you can use the indicator you have just developed to measure conditions before your program touches its audience.

Choosing your indicator(s). Review the need, audience, services, general goal and outcome(s) you identified in earlier sections. Remember that while IMLS would be very interested in additional information, you need only choose one indicator for your outcome, or one indicator for each outcome.

Like the outcome, your indicator or indicators should be logically connected to your previous decisions, which should make it possible to achieve your indicator. Enter the indicator or indicators you will measure and report to IMLS to show the value of your Learning Opportunities Grant project to your audience.

Tip: Look at the information you used to identify the need that led to your project. It may be that project partners or research studies have developed an indicator you can use.

Tip: If at all possible, choose an indicator for which you can use information that is generated for other purposes, instead of collected specifically for your evaluation. Most projects assemble a great deal of information in the course of their work. Partners may generate information about attendance, reading, or academic performance; Web sites may generate information about hits, use, or users; social service agencies may keep information on client behavior or condition. Think carefully about what sources of information related to your audience and your outcome might be available, and consider choosing an indicator for which you could use such information.

You have finished the most challenging part of outcomes-based evaluation planning–you're almost done.

8c. Applied To [Required]

We know this is an awkward and confusing term, but IMLS has looked at many alternatives, and we can't find another that fits the situation. It may help to think of "applied to" as a kind of "sample," but the two are not exactly the same. "Applied to" is the group of people from your target audience who:

- have the characteristics you designed your program for;
- have actually used your service; and
- are the individuals you will collect information about or from, to tell you the extent to which they meet the conditions you chose as an indicator above.

They are the group of individuals your evaluation process and data sources will "apply to."

For example, if your project has a small number of participants or users, or each participates for a long time, frequently, or intensively, you may want to measure everyone to learn if they achieved your indicator, and thus your outcome. Since outcomes-based evaluation for program management doesn't usually require a statistically representative or unbiased "sample," IMLS has avoided the word "sample."

Remember, this group of individuals represents the "who" identified in your outcome and indicator, but they may not be identical with the whole target audience or the entire group of participants or users. Your goal is to:

- identify a large enough and representative enough group of participants or users to provide reasonably accurate information about how many people gained the outcome;
- identify the minimum level of use or the minimum time period for use or participation that your service needs to achieve the indicator you have chosen; and
- balance the need for accurate information with the time, expertise, and other resources you have for the evaluation–the larger the "applied to" group, the more time evaluation will require.

Here are some characteristics or criteria to consider when you are choosing the group to participate in your evaluation include:

- Do people in this group have the need you designed the program to meet?
- Do people in this group have most or many of the important characteristics you designed the program to accommodate?
- Are there enough people in this group to provide you with accurate enough information for your decision-making or reporting needs?
- Have people in this group used your services enough to be a fair test of the services' results?
- Will your project's stakeholders see this as a meaningful and sufficient group to assess?
- Will enough people in this group be willing to participate in the evaluation?
- Do you have the necessary resources (time, skills, budget) to assess this number of people?

In our MESS kit example, the target audience is all Head Start teachers (teachers and teacher assistants). For outcome 8a the project chose "teachers use activities included in MESS Kits at least once each week in the two months following the 3rd workshop." That project's evaluator will only apply this indicator to participants in workshop 3 because even though other outcomes could be achieved through any of the workshops, he or she believes workshop 3 has the content needed to give the teachers the enthusiasm and confidence to use the kits regularly.

In addition, while 150 teachers from 50 classrooms might participate in the workshops, the project believes that a smaller number will actually participate in each of the three workshops, so this choice might reduce the number of responses to be processed, and it will still provide "good enough" information about the project for its needs. In other words, the "applied to" is teachers who participate in the third of three workshops.

Protecting your audience's privacy. Check to see if your museum, your parent organization, or a partner has human studies authorization processes and policies, release forms, or formal confidentiality policies you need to follow. Be sure to plan for the confidentiality of your evaluation records. Tell participants how you will protect their privacy and confidentiality. Most evaluations report only combined data, not information about individuals. Most participants will want to know you will follow the same guidelines.

Participation in evaluation. Participation in almost all museum and library programs and evaluation is voluntary, but most people like to be helpful, and almost everyone enjoys the opportunity to tell you what they think about your product or service. Of course you will respect the unwillingness of anyone who doesn't want to participate in your evaluation.

> Tip: Don't expect 100% participation in your evaluation. IMLS finds that for mail, phone, or e-mail surveys on museum and library issues, where respondents are personnel of these institutions or regular users of them, about 25% participation is typical. Choose an "applied to" with enough individuals to accommodate this reality.

8d. Data Source [Required]

What are data sources? Data sources are any resource that provides information about the extent to which the individuals you have chosen to apply your evaluation process to meet the conditions of the indicator you are using to represent the outcome you hope for. These resources may be existing records, information collected by others for different purposes, tools you create specifically to collect information (called instruments), or work created by participants in the course of your service. Surveys, interview scripts, and workshop evaluation forms are all data sources (and all instruments). Some projects include sources of information created by participants in the course of their participation, such as writing, artworks, web pages, portfolios, or other products.

Data sources can be used individually or in combination. Because so many potential Learning Opportunities Grant programs, and so many possible approaches to evaluating their outcomes, are possible, we can only provide a brief overview here. Consider hiring an evaluation professional to provide advice or assistance in developing your strategy and instrument for gathering information. You can also consult the American Association of Museums publications list, ask your local library to recommend reading material for survey design, or see the outcome-based evaluation bibliography on IMLS's web site for assistance.

> Tip: Independent of the data source and approach you choose, more people are likely to participate if you explain your purpose for evaluation, describe how you will protect their privacy, and ask for cooperation during their participation in your service. If you will use a mail, e-mail, or phone approach, get contact information for evaluation at that time.

Common evaluation data sources

Tests. Most tests consist of a series of questions that ask for "yes/no," multiple choice, or narrative answers, often based on a knowledge of facts. Some tests examine behavior, condition, or skill through the test taker's performance. Tests grade an individual's answers against a standard or against the answers of others.

While tests are an excellent device to measure results of some learning processes, unless your project is intended to support classroom teaching, testing will probably fit your project badly. Most museum learning is voluntary and the result of brief experiences. Most museum projects have very diverse participants, and most museum learning spans numerous dimensions (feelings, physical and social experience, aesthetic and intellectual experience, etc.). Typically the smallest part of museum learning is a set of facts that could be measured against an absolute standard to show learning. Not least, for most of us, facing a test would take the pleasure out of using any museum service–a result completely out of kilter with the special nature of museum learning.

Unless your Learning Opportunities Grant *intends* to change student performance on a standardized test, plan to use other approaches to evaluation.

> Tip: If you hope to affect test scores, collaborate closely with teachers, and allow them to design and administer any tests. Arrange for participating teachers to report combined (not individual) test scores to you, following their schools' policies and procedures. Make sure you know teachers' educational goals precisely. Your project design will need to support them and complement the formal curriculum.

Surveys. Most surveys consist of a series of questions that ask for "yes/no," rating scale, multiple choice, or narrative answers. Although they may not be easiest or the best, surveys are probably the most commonly used data source for outcome-based evaluation in museums.

Likert scales are a special form of multiple choice question. They use a fixed-choice, graduated, rating from high to low (or low to high) for response. A question like "Circle the choice that best represents your confidence in pointing out examples of science in your classroom: very confident/moderately confident/not at all confident," uses a Likert scale. Likert scales can also use numbers (for instance 1=high, 3=moderate, 5=low). The Head Start example we have been following relies on a survey and Likert scales of confidence for its evaluation,

Many surveys ask for narrative answers to some questions, but these can be very challenging to analyze and compare. If surveying is new to you, IMLS suggests you avoid questions that don't limit choices for response (*open-ended questions*), If you have never created a survey before, draw on a professional's experience if possible. If that is not available, stick to yes/no, rating scale, or multiple choice questions. Keep the survey very short and directly related to your indicator, and use only one format (yes/no, multiple choice, or a rating scale).

Good surveys are challenging to construct. Always ask others who know your project and its audience to take your survey and to review your questions critically. Always pilot your survey by asking at least a small group of your target audience to complete the survey before you use it for your whole "applied to" group. This will allow you to flag and correct problems in advance–before such corrections make it impossible to confidently compare responses from individuals who took different versions.

Easy, convenient surveys increase responses (*response rate*). You can use mail or e-mail to distribute your survey, or you can attach a user survey to a Web-based product or service. Consider which method your "applied to" will find most comfortable and convenient, and which will reach the largest number of them.

If you believe an online survey will reach your audience, many commercial Web survey products can simplify the process. IMLS's outcomes bibliography lists a few, and a Web Search will suggest others. Most will lead you through the process of developing survey questions step by step, and a wide spectrum of cost and fee structures exist.

Consider carefully if a survey will give you the information you need. Surveys are a poor choice for many indicators, and for many groups. People who read with difficulty (or read your survey language with difficulty), or anyone with a visual or learning disability may not be able to complete a survey or may need help to respond. If your "applied to" includes people with these characteristics, an oral or phone version of your survey may offer a solution. Other strategies are usually better for measuring outcomes for children, but parents, caretakers, or teachers may provide "good enough" information about children if they know both the participating child and your project.

If you administer an oral or phone survey, it is preferable to have someone from outside the museum or project staff conduct it. Professional survey services are widely available. If more than one person will administer an oral or phone survey, plan to train each surveyor to follow exactly the same script for the survey, and to record responses the same way.

> <u>Tip</u>: If you are collecting information about customer satisfaction, and the people who will provide that information meet the criteria for your "applied to," consider adding one or two questions about outcomes to your satisfaction survey.
>
> <u>Tip</u>: Avoid the temptation to use a survey to ask questions out of curiosity, or in hope of learning that what other outcomes occurred. If a question is not directly related to your outcome measure, unless you will use the information to make a significant decision about this project, do not include it in your survey.
>
> <u>Tip</u>: Let potential respondents know at the beginning of a written survey or at the beginning of a phone call how long you expect the process to take.
>
> <u>Tip</u>: Plan to send at least one reminder to non-respondents for a mail survey or electronic survey. If you need most people who receive a survey to respond, plan to send up to three reminders.

<u>Interviews</u>. Interviews gather information by asking individuals questions, and allowing responders to use their own words.

Interviews can provide very detailed information about outcomes, but responses can be hard to analyze. Comparison of information among responders requires a carefully scripted interview. Many considerations for surveys apply to interviews. Write out interview questions and have colleagues and someone who knows the audience read your questions to identify potential confusion or other problems. Keep interviews short and only ask questions directly pertinent to your evaluation. If more than one person will conduct interviews, plan to train interviewers to conduct the interviews and record responses the same way.

You can conduct interviews in person or by phone. Responses can be tape recorded or written by the interviewer. It is best to tape record if your interviewees are willing–a*lways* ask permission. Recording responses in writing during the interview is next in reliability. You can design a *rubric*, a set of criteria for assigning a number or characteristic to a product or response if it is not necessary to have a detailed transcription of the narrative, but if that's the case, consider using a survey. Numerous commercial computer-assisted telephone interview products are available.

As in oral or phone surveys, if possible have someone from outside the museum or project staff conduct interviews. Professional interview services are widely available.

> Tip: Interviewers should review responses immediately following an interview to make any corrections. Never rely on memory for accurate information.
>
> Tip: You can design a *rubric*, a set of criteria for assigning a number or characteristic to a product or response if it is not necessary to have a detailed transcription of the narrative. If you do not need the individual language of responders, though, consider using a survey.
>
> Tip: Plan on several calls to reach someone for a phone interview. If the interview will take more than 5 minutes, expect to set a convenient time for a phone interview on your first contact. Let potential respondents know on the survey or at the beginning of a phone call how long the process will take most people.

Focus groups. Focus groups have many characteristics of interviews, but focus groups interview a group of people who have common characteristics at one time.

Since outcome-based evaluation focuses on the experience of each individual, focus groups are usually a poor choice for collecting outcome information. Participants can easily influence one another's answers, and a strong personality or opinion can impact the independence of responses. Many of the considerations for interviews apply to focus groups, but it's very important to tape record or to use a live recorder for each session. The person conducting the focus group has too many other responsibilities to accurately capture the information participants share. As in other person-to-person approaches above, if at all possible use someone outside the museum and the project staff to conduct and record discussion.

Focus groups take special skills for facilitation and group management. If no one who is not directly involved in the project has experience conducting focus groups, use a professional evaluator for this approach. If your project budget will not accommodate a consultant, plan to use a different approach.

Existing records or records of another organization. Records are formally or informally maintained sources of information about people, events, or things.

Existing records include public records, such as aggregated scores from standardized school testing or school dropout rates, and private records, such as classroom attendance or individual grades. Some records will be created in the ordinary course of business, for purposes unrelated to your project (for instance medical or social service behavior records). Records might be created by a partner organization for needs related to its staff or constituents' participation in your project (for example Head Start's records of teacher participation in training).

A data source that someone else maintains can reduce the time needed to collect information for your evaluation, as long as you can arrange in advance for access to the information. Research the requirements for access carefully before you plan to base your evaluation on private records. You may need formal releases from your "applied to" group, or you may need to meet procedural or policy demands of another organization. A source of information created by your museum for administrative reasons, such as a detailed Web log, can also reduce the work of your evaluation.

In the Head Start Example, records of technical assistance will provide information about teachers' frequency of use and confidence in using the MESS kits, through questions advisors ask in the course of responding to requests for help.

<u>Participants' products or performance</u>. These data sources include diaries, records of experiments or studies, and other forms of writing; artworks, portfolios, built or engineered devices; performances; or other things your audience members create in the process of your project.

Things that participants create or performances in the natural course of the learning process may provide the best sources of information about their learning. With participants' permission, requested at the start of their learning process, you can observe performance or borrow material for evaluation against a set of criteria you design specifically to assess an outcome or outcomes you intend to help build. This approach to evaluating outcomes can also benefit participants by providing feedback about their individual progress. It provides an evaluation process integral to the design of the learning experience.

For credible outcomes measurement, remember, indicators are observable, concrete, and objective. To assess the work of participants for evidence of an outcome, you may need to create criteria that allow you to know if an individual met the parameters of your chosen indicator, or "got" the outcome you intended. Criteria like this usually take the form of a set of characteristics that rate qualities on a "proficient/not proficient" scale or a graduated scale like "needs improvement," "proficient," and "expert." A grid or matrix of criteria and the characteristics that describe each rating on the scale is called a *rubric*.

Here are two simple rubrics:

- <u>Outcome</u>: Students develop a strong visual vocabulary
- <u>Indicator</u>: Student art meets program criteria for strong visual vocabulary

	Weak visual vocabulary*	Strong visual vocabulary*
Color	Limited palette: uses fewer than 4 colors or fewer than 4 tones; copies colors of model artwork exclusively; *or* uses less than 10% of colors available in the medium provided	Experimental or expressive color: uses strong contrasts or subtle color changes; uses more than 10% of colors available in the medium provided
Form	Limited experimentation with form: forms, relationship, and/or scale of formal components are restricted to fewer than 3 relationships; *or* forms copy model artwork	Experimental or expressive form: forms, relationship, and/or scale of formal components include more than 3 relationships; *or* some forms distinct from model artwork
Theme	Theme copied from model artwork	Theme original
Affect (subjective judgment of resident artist or	Color and form do not communicate theme chosen by student to another viewer	Color and form communicate theme chosen by student to another viewer

teacher)		

*Criteria are offered only as examples, *not* as models of desirable criteria. Criteria should reflect specific learning goals of the museum program or product. The point to note is that criteria for "strong" need definition and articulation to reduce subjectivity of the assessment. In this case, the resident artist or teacher are considered to provide objective review because of their experience and status.

- Outcome: Teachers strengthen classroom science teaching
- Indicator: Teachers draw on personal/workshop experience to point to examples of science in the classroom

Could improve	Capable	Proficient
Points out no examples or points out fewer than 3 simple examples each week (example: water draining from sink is a vortex).	Points out only simple examples or points out no more than one simple example each day	Points out complicated or multiple examples or suggests experiments to test examples (examples: look for vortices in the sink, or when you stir juice; how many examples can you find?)

A Web search will produce many rubrics for your adoption or adaptation, and "rubric generators" are easy to find. See a wide spectrum of rubrics assembled at *The Staff Room for Ontario Teachers*, http://www.odyssey.on.ca/~elaine.coxon/rubrics/html, and Mid-Continent Research for Education and Learning rubrics for academic and creative learning at http://www.mcrel.org/compendium/browse.asp.

8e. Data interval [Required]

Data intervals are the points at which you plan to collect information about indicators to know the extent to which your project creates its intended outcomes. Most projects collect information at project beginning and end, but if your museum service is not as effective as it hoped, information at the end of the project will come too late to use for improvements.

Plan to collect information for at least a sample of the audience that uses your service and fits your "applied to" criteria at the beginning and end, or the end , of their learning experience throughout the project. That information can provide early notice that something about your project design needs modification. If you cannot find participants who fit the characteristics of your expected target audience or "applied to," your evaluation has already provided essential information–you need to investigate why your project misses reaching that audience, or why your audience is reluctant to provide evaluation responses.

Your options for data intervals are very wide, and many projects don't need to collect information about every participant or even every group. It may give you "good enough" data to evaluate periodically, as at beginning, end, and middle, or after a significant change to the project design or audience. If your outcomes or indicators are framed to show improvement or increase, you may need to collect information before your audience participates in your learning experience.

> Tip: If your project simply wants to create a benchmark knowledge, skill, or other outcome, you may find it enough to demonstrate how many participants show the intended outcome at the end of their learning experience..

> Tip: If you have used existing research or verifiable reports to establish a need, you may not need data about individuals to show the extent of your success.

8f. Goal [Optional]

The word "goal" has many different uses, including general aims or intentions for achievement that can include organizational benefits, visions, benchmarks, or milestones. In this logic model, goals are very specific, numerical *targets* for how many participants or users of your service you hope will experience the outcome you designed it to create. They are your program's most concrete goal. Some planners believe program planners should not set goals for new programs, since little information may be available on which to base a target. IMLS believes targets give programs something to weigh information collected in interim evaluation against.

How do I choose a goal or "target"? This is basically a judgment based on your knowledge of the need, your target audience, your program design, and your common sense. Do not choose a goal that you have any reason to believe is unachievable. Only very rare or modest projects reach goals of 100%. If you choose an ambitious outcome, or your target audience needs an intensive or long-term experience before you could expect individuals to achieve the criteria for your indicator, 10% may be high.

For example, consider that the MESS program chose as its outcome "Head Start parents will use take-home MESS kits to create science experience for their children." We can assume that many parents in the poorest county in Florida have no science interest or background, minimal time for learning, and modest understanding of the importance of parent-directed educational play. Unless the program can provide intensive, continuing support for those parents to master basic science concepts, find time and energy for the play, and learn to use the kits in productive ways at home, if program planners are realistic, they know that a very small number and percent of parents would expect to use the kits "regularly," no matter how "regularly" is defined. If some support and resources are provided, and fit the needs of the families successfully, some parents could expect to demonstrate the indicator (and have the outcome). If intensive teaching and mentoring of parents is provided, more might expect to. The goal for this outcome of the program needs to balance those and other factors.

Consider all of these elements in identifying a goal or target for each indicator. As in the case of all of the other elements of your logic model, don't hesitate to contact IMLS for discussion and assistance.

V. Reporting

Congratulations, you have finished your working Learning Opportunities Grant Evaluation Logic Model! IMLS will review your evaluation plan, make suggestions, and return it to you for your consideration and modification. We will then review your final plan for authorization. As we have said, this is a process, and we don't expect perfection. The important thing is to have a concrete plan to measure one representative outcome for a learning project that is part of your grant.

We will expect you to follow the authorized plan, to collect the information it calls for, and report your results to IMLS as a part of your interim and final grant reports. If the audience, design, or outcomes of your project change, please contact IMLS to discuss your altered plan. This is not unexpected.

IMLS will not need raw data for your evaluation. We expect grantees to analyze and interpret evaluation information to answer the questions posed in the "Stakeholders" section of the logic model (3a-b) in narrative form. If you have any questions about that report, please do not hesitate to contact Karen Motylewski or Christine Henry.

IMLS will also be interested in any information you would like to share about your experience of building an outcomes-based evaluation plan and measuring outcomes. We would like to share good (and disappointing) logic models, approaches, instruments, and results with the museum community. If you have an experience you would like to offer for that purpose, please discuss it with Karen Motylewski.

Once more, congratulations on your Learning Opportunities Grant and your completion of your outcomes logic model. We look forward with great enthusiasm to hearing about your projects as they evolve.