December 2008

Dear Colleagues:

Enclosed please find sample narratives, schedules of completion, and summary budget forms from three successful applications to the 21st Century Museum Professionals Grants (21MP) program. Each of these applications clearly addresses the bullet points and review criteria for the four sections of the narrative, as outlined in the grant program guidelines.

The **Vermont Museum & Gallery Alliance** application is included as an example of a smaller organization that has designed a statewide project focusing on collections management for both paid staff and volunteers in small museums. The application is clearly written, includes the use of outside consultants and interns, and includes a strong assessment of audience needs as a foundation for the project design.

The **Exploratorium** application is included as an example of a larger organization that has designed a project that involves a formal partnership and will provide professional development for a targeted group of museum educators. The project will result in a set of program design principles that can be disseminated widely. The narrative includes a strong Statement of Need followed by a detailed project design and measureable outcomes that are clearly articulated.

The **University of Washington** application is included as an example of a project that demonstrates knowledge of current and best practices in the field to enhance a museum studies program, providing a professional training program that bridges the chasm between academics and practice. The project targets a specific audience and the project design includes clearly stated objectives, action steps, and a carefully planned timeline to achieve success. This is an application that demonstrates a methodology for shared learning between students and working professionals through practicum work at local museums.

I hope that these sample narratives will be useful to you as models for structuring a proposal that supports projects that build the knowledge, skills and abilities of museum professionals and impact multiple institutions. Please contact me at (202) 653-4685 or creich@imls.gov; or Twinet Kimbrough at (202) 653-4703 or tkimbrough@imls.gov. We would be happy to assist you and discuss any questions you have as you develop your proposal. Applications for 21MP are available from the Grants.gov Web site (www.grants.gov). We look forward to receiving your application.

Sincerely,

Christopher J. Reich
Senior Program Officer

**Application Narrative**

## 1. Audience Needs Assessment

Since 1984, VMGA has been working with museums, historical societies, and other collecting institutions in Vermont and adjoining states to improve the preservation and management of their cultural treasures. Vermont is a small state, with only 251 towns, and its cultural organizations are, as a whole, of corresponding size. Of the 200 institutional members of VMGA, approximately 70% have operating budgets under $50,000 (and are therefore essentially volunteer-run) and less than 15% have professional collections staff. This means that the majority of institutions are run by non-professional staff/volunteers without formal museum training. But while the organizations might be small, their numbers are increasing. A 2002 survey of VMGA's Vermont Collections Care Program (VCCP) found a 36% increase in the number of cultural organizations served by VMGA since 1980 (see attachments).

These percentages were reaffirmed nationwide by Heritage Preservation's publication of the *Heritage Health Index* in 2005, which quantified the need for additional collections care training (70% of organizations need more training) and that most (80%) cultural institutions do not have professional collections staff. VMGA has been the main source for training and support for these institutions and individuals in Vermont. The *Building Accomplished Museums: Collections Stewardship* (BAM) project would benefit these small institutions by providing learning opportunities and training in a variety of methods—through traditional workshops that cover the basics of collections care/management; through the opportunity for self-assessment to determine individual institutional needs and priorities; and by backing-up these learning opportunities by providing hands-on assistance to implement a collections care project.

The concept for this project comes from VMGA's longstanding work with this audience, as well as recommendations from reports and assessments. Since 1992 VMGA has been providing services through the VCCP—which includes grants, site visits, workshops and mentorships. Experience and feedback has shown that while long-term improvement is attainable, many of these types of organizations struggle to obtain basic long-term institutional knowledge, to implement recommendations for improvements, and to plan for the future. The 2002 VCCP survey confirmed these issues and offered the following findings & recommendations:

- The success of surveys/grants were often dependent on individuals and on an institution's openness to change

- Organizations needed more programs that helped grow organizational capacity (planning, prioritizing, developing volunteers) and put collections care/management in the larger context of organizational development.

- That VMGA should work to establish programs which offered a "baseline" of information for organizations.

These recommendations were confirmed in a survey VMGA conducted of collections survey consultants who worked through the VCCP program (see attachments). These consultants felt that organizations needed more understanding of the broader significance of collections, and that a 2-part program focusing on prioritizing needs and implementation would be most useful.

Using these ideas and assessments, VMGA developed and held a pilot version of the BAM program in 2004-2005. The project was very well-received, with six institutions participating. (see attachments) Based on evaluations and feedback from the pilot program, we have made a few improvements to the program. They include more time for the workshops and hands-on project, the addition of the self-assessment module, and more post-program dissemination/ presentations. BAM's value and impact can be best summed up through one participant's comment: "This program has provided us with valuable information and tools to help preserve, manage and present our unique collections. We look forward to continuing to build on our hard work."

## 2. Project Design

The *Building Accomplished Museums: Collections Stewardship* program is designed to create a relevant and lasting educational experience by combining traditional, classroom instruction with hands-on practical assistance working on actual collections-related projects selected by the participating organizations. The eight participants will be VMGA member institutions selected via a competitive application process. Selection will be made based on a predetermined set of criteria ranking the strengths of each organization's goals, commitment to the project, ability to participate, and need.

Eileen Corcoran, VMGA's Acting Director, will serve as Project Director for the program. She will be in charge of all aspects of planning and implementation of the project, including fiscal management. Support and assistance for selecting participating organizations and interns will be provided by VMGA board members, who themselves are active staff and volunteers in the museum community (see attachments).

The first program component will be a series of four all-day workshops, led by the Project Director and contracted consultants, on managing and caring for collections: Assessing & Planning for Collections, Basic Registration Techniques, Housekeeping & Storage Needs, and Creating Engaging Exhibitions (see attachments). The workshops will include lectures, hands-on activities and small group discussions. The workshops will be held at the participating institutions whenever possible, allowing the use of actual collections and "real world" scenarios to help make the information more relevant. Participating organizations will be encouraged to bring several people to each workshop. When space is available, the workshops will also be opened up to other VMGA members to attend.

Workshops will be followed by self-study assessments of collections care and management by each institution, utilizing the American Association of Museums (AAM) Accreditation Self-

Study Questionnaire. Organizations will complete, at minimum, the relevant section on collections stewardship to help determine priorities and areas most in need of improvement. Participants will use the knowledge gained from the workshops, as well as from additional provided resources (such as the UK Council for Museums, Archives & Libraries' *Benchmarks in Collections Care*) to help them complete the assessments. The Project Director will provide support to the organizations in completing the questionnaire, and all eight institutions will share their results and thoughts about the process at a joint networking meeting. The institutions will then use what they have learned from the assessment to determine the collections project they will work on with their intern during the summer.

Once projects have been selected, a graduate-level intern will provide three weeks of hands-on assistance at each institution (two interns will be hired for the project, each working at 4 of the institutions for a total of 12 weeks). Possible project components could include inventorying collections, completing condition reporting, rehousing collections, or cataloging. Institutions will be required to have staff/volunteers working alongside the intern, which will allow them to implement the knowledge learned at workshops and make real progress in managing their collections. The organizations will be asked to provide housing for the intern and the intern will complete a report detailing his/her work for each organization, along with recommendations for further tasks to be done.

To provide ongoing project support and to promote the organization's learning and long-term capacity building, the eight organizations will also be provided with three site visits with the Project Director. The first site visit will be dedicated to reviewing their selected collections project prior to the intern's start. This will help to ensure that institutions are choosing projects that are of the highest priority, and work well within the framework of the intern's time and experience. The other two site visits can be used at any time during the project (or shortly after) to continue projects started by the intern, for further training, review of policies, or to meet other needs. Participating organizations will also be linked via an e-mail group, which will be used to share information, updates, and resources during (and after) the project. To ensure a wider impact for the project, the organizations will also be asked to share their knowledge and experiences by becoming part of VMGA's Mentors Program, writing articles for our newsletter, and hosting public programs promoting their accomplishments.

The main goal of the program is to build institutional capacity and foster long-term improvements for the eight organizations through improving the care and management of their collections—their most valuable resources. Organizations will be required to share their accomplishments with their community through promotional materials & public programming (such as press releases and open house events). They will also share their experiences with similar organizations in need through the VMGA Mentors Program (see attachments) and through presentations at regional events such as the VMGA Annual Meeting held each spring, and the VMGA/League of Local Historical Societies joint conference held every fall. This will ensure an impact for the program that is much broader and relevant to hundreds of organizations.

The end result will be eight geographically dispersed, small Vermont institutions that will serve as models in museum collections care, exhibition and documentation techniques. Other anticipated outcomes of the project will be providing hands-on training and job skills for the project intern; increased visibility of museums in their communities; and eight self-assessments that can serve as data for helping to determine future areas of training/support for museums in the state.

VMGA publicizes all of its activities via direct mail, a quarterly newsletter, and an email distribution list. A brochure and application for the program will be mailed to all VMGA members. The eight participating institutions in this project will also be required to send notification of workshops and/or events they will be hosting to their local newspaper and to their state legislative representatives. Articles on the program will appear periodically in our quarterly newsletter, and outcomes/lessons learned will be shared with other arts/cultural agencies through publications and at professional conferences.

The success of the program will be measured through a variety of methods. Evaluations will be completed by participants at each workshop (see attachments). Each pariticpating organization will also be asked to complete a final evaluation report describing what they have learned and how they plan to continue their work in the future (including quantifiable measurements such as how many people were involved in the program, the amount of time spent on each program component, and how many artifacts were directly impacted by their collections care project). The follow-up visits with the Project Director will also help in measuring the impact and success of the program components. Participating organizations and the Project Director will be linked throughout the program via an e-mail group, which will allow everyone to share questions, concerns, and accomplishments. Since the main goal is one of long-term change, VMGA will continue to montior progress and collect further evaluations from participating organizations after the end of the project. These evaluations will be collated by the Project Director and discussed with members of VMGA's Collections Care committee.

## 3. Project Resources: Time, Personnel, Budget

The project will run for a total of 28 months from late 2007 to early 2010. This time is needed in order to complete the different phases of the program, and to be able to coordinate the interns' work with the summer months. The timeline is as follows:

November 2007- January 2008—Announce award & program, publicize & solicit applications
February-May 2008— Select participating organizations, schedule workshops
June 2008-March 2009—hold workshops
October 2008- April 2009—complete self-study/assessments, review & hold assessment meeting
January-April 2009—advertise for, interview, and select project interns
May-August 2009—Interns work at sites
May-January 2009—follow up visits w/Project Director,
October 2009-onward---presentations, dissemination of results

December 2009-February 2010—project wrap-up, evaluation

The Project Director for the program will be Eileen Corcoran, the Acting Director of VMGA. She is skilled in the areas of collections care and management, and has over five years of experience coordinating training programs and professional development opportunities. She will also serve as presenter for the housekeeping/storage workshop. Ms. Corcoran will devote ⬛% of her time to this project. This represents most of her normal hours dedicated to the VCCP program. As she already handles finances for VMGA, she will also be responsible for handling finances for the project, with support from the board treasurer.

Presenters for the other three workshops will be Erica Donnis (Assessing & Planning, Registration Techniques) and Linda Norris (Exhibition Techniques). Both Ms. Donnis & Ms. Norris are private consultants, with years of experience in their respective fields (see resumes). They presented these same, well-received, workshops in the pilot version of the BAM program, so are well skilled and committed to present again.

Project interns will be selected through an application process, with announcements of the opportunity sent to accredited museum studies, conservation, and associated cultural studies graduate programs. The ideal candidates will have experience working in museums and education in the areas of collections management, conservation, archives, and/or exhibitions.

Most of the costs for this project run over VMGA's normal operating expenses. VMGA will be covering staff costs. We will be requiring the eight participating organizations to contribute $300 each to help cover costs for the workshops & interns. In addition, participating organizations will contribute workshop space, as well as providing housing for the interns.

## 4. Impact & Sustainability

This project is intended to have a concentrated, extensive impact on a relatively small number of institutions, but an overall impact on a large number of people and on the greater museum community of Vermont and beyond. Based on our pilot program, we anticipate 100-120 people will participate in some aspect of the program, and that for many of these people it will be their first exposure to formalized collections care training. The result will be that these small to mid-sized organizations will then have multiple persons with a knowledge base on which to draw when planning new projects, exhibits, or even educational programs. This will ensure that learning and benefits extend past the grant period. Long-term benefits and knowledge will also be provided by the resources provided throughout the project—including workshop handouts, completed self-assessments, evaluations, and intern reports. In addition to impacting small to mid-sized institutions, this project will also provide practical training to two up-and-coming museum professionals through our internship component.

Specific knowledge, skills and abilities will vary slightly by institution and individuals, but we anticipate that each institution will learn:

- Role of collections within an organization
- Basics of Planning (strategic, conservation, & interpretive planning)
- Accessioning policies & practices
- Cataloging practices
- Collections Loans
- Inventorying Collections
- Basics of Housekeeping (maintenance, pest control, disaster preparation)
- Basics of Artifact Storage
- Planning & Designing Exhibitions
- Label Writing
- Basics of Conservation & Care
- How to Conduct Self Assessments

Dissemination of the results of this project will be provided through a number of venues—including the VMGA newsletter, and via presentations at conferences. Knowledge gained by the participants will be shared with the wider community through promotion of their participation, and through their work with the VMGA Mentors Program. The project is intended to serve as a model for other states in working with, promoting, and improving smaller cultural institutions. Its components could be easily replicated, and what VMGA learns from the program will be shared with other service organizations via published articles and participation in professional groups, such as the Field Services Alliance and the National Alliance of State Museum Associations.

# BUDGET FORM:  Section B, Summary Budget

| | $ IMLS | $ Cost Share | $ TOTAL COSTS |
|---|---|---|---|
| 1. Salaries and Wages | | $27,358.00 | $27,358.00 |
| 2. Fringe Benefits | | $4,104.00 | $4,104.00 |
| 3. Consultant Fees | $9,480.00 | $2,400.00 | $11,880.00 |
| 4. Travel | $11,111.00 | $10,080.00 | $21,191.00 |
| 5. Supplies and Materials | $4,830.00 | | $4,830.00 |
| 6. Services | | | |
| 7. Student Support | | | |
| 8. Other Costs | $534.00 | $500.00 | $1,034.00 |
| TOTAL DIRECT COSTS (1-8) | $25,955.00 | $44,442.00 | $70,397.00 |
| 9. Indirect Costs | $3,893.00 | $6,666.00 | $10,559.00 |
| TOTAL COSTS (Direct and Indirect) | $29,848.00 | $51,108.00 | $80,956.00 |

## Project Funding for the Entire Grant Period

| | |
|---|---|
| 1. Grant Funds Requested from IMLS | **$29,848.00** |
| 2. Cost Sharing: | |
| a. Applicant's Contribution | **$43,942.00** |
| b. Kind Contribution | **$7,166.00** |
| c. Other Federal Agencies* | |
| d. TOTAL COST SHARING | **$51,108.00** |
| 3. TOTAL PROJECT FUNDING (1+2d) | $80,956.00 |
| Percentage of total project costs requested from IMLS | **37 %** |

*If funding has been requested from another federal agency, indicate the agency's name:

Vermont Museum Gallery Alliance
21st Century Museum Professionals
2007 Application

Schedule of Completion
Year 1

| | Nov. 07 | Dec. | Jan. 08 | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sept. | Oct. 08 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

Publicize award ▇▇▇▇▇▇

Create, publicize & solicit applications ▇▇▇▇▇▇▇

Select participating organizations
& schedule workshops ▇▇▇▇▇▇▇▇▇

Hold first 3 workshops ▇▇▇▇▇▇▇▇▇▇▇

**Grant Funds for Year 1 = $7,017**

**Categories:**
Consultant Fees, Travel, Supplies &
Materials, Other, & Indirect Costs

Vermont Museum Gallery Alliance
21st Century Museum Professionals
2007 Application

Schedule of Completion
Year 2

| | Nov. 08 | Dec. | Jan. 09 | Feb. | Mar. | Apr. | May. | Jun. | Jul. | Aug. | Sept. | Oct. 09 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hold remaining workshop | | ███ | ███ | ███ | | | | | | | | |
| Complete self assessments | ███ | ███ | ███ | ███ | ███ | ███ | | | | | | |
| Hold self assessment meeting | | | | | | ███ | | | | | | |
| Advertise for, interview & select project interns | | | ███ | ███ | ███ | ███ | | | | | | |
| Interns work at sites | | | | | | | ███ | ███ | ███ | ███ | | |
| Follow-up site visits with Project Director | | | | | | | ███ | ███ | ███ | ███ | ███ | ███ |

**Grant Funds for Year 2 = $22,328**

**Categories:**
Consultant Fees, Travel, Supplies & Materials, &
Indirect Costs

Vermont Museum Gallery Alliance
21st Century Museum Professionals
2007 Application

Schedule of Completion
Year 3

| | Nov. 09 | Dec. | Jan. 10 | Feb. | Mar. 10 |
|---|---|---|---|---|---|
| Follow-up site visits with Project Director | ████████████████████ | | | | |
| Presentations, dissemination of information | ████████████████████ | | | | |
| Project wrap-up, evaluation, reporting | ██████████████████████████ | | | | |

**Grant Funds for Year 3 = $503**

**Categories:**
Travel, Indirect Costs

## 1. Statement of Need

**A. Intended Audience**: The *Museums Afterschool: Principles, Design and Data* project (MAPDD, pronounced "mapped") will generate professional knowledge and tools for museum educators who are providing science learning activities for children in afterschool programs. MAPDD's main product will be the development of the *MAPDD Guidelines* which will include (1) a set of program design principles for informal science in afterschool settings, (2) a collection of program descriptions illustrating the use of these principles in a range of science and children's museums, both large and small, and (3) a body of evidence showing how the integration of the principles have shaped student experiences/outcomes. The *MAPDD Guidelines* will be widely disseminated in print and electronic form, in professional forums and through targeted professional networks. They will provide support and guidance to strengthen museum science programs for afterschool audiences.

The **ultimate audience** for MAPDD is museum educators who work as designers and implementers of science learning partnerships, programs, and activities for afterschool programs[1]. Such museum educators include those who form partnerships, supervise the design of programs, and/or provide workshops to children in afterschool programs. The **intermediary audience** is teams of two educators from nine museums and four afterschool organizations (see List of Key Project Staff, Consultants, and Partners). These 26 educators – selected for the *breadth* of institutions and geographic locations they represent and also for the *depth* of their individual experience and leadership in the field – will together undergo their own professional development as they work with practitioners and researchers to create and test professional development tools for use by the broader museum field. As leaders in the field, they will have numerous occasions over the coming years to share project experiences and outcomes and to contribute to shaping the work of the field.

**B/C. Audience Needs and Benefits**: There is growing interest in the role that museums can play in supporting high quality science programs for children in afterschool programs. A 2005 Irvine Foundation report, *Museums After School: How Museums Are Reaching Kids, Partnering with Schools, and Making a Difference,* declared that "Museum leaders are discovering a unique opportunity for their institutions to make a difference: the after-school program" (p. 4). Irvine cited two reasons for this trend: first, museums had "stepped up" their capacity to play key educational roles in their communities. Second, there was growing consensus that afterschool programs could make a critical difference in children's lives: socially, academically, and emotionally. In its needs assessment, Irvine noted that "Museum practitioners expressed great interest in learning about the ingredients of effective programs" (p. 1).

A 2007 IMLS Report, *Museums and Libraries Engaging America's Youth,* also noted afterschool programming as an important domain of work for museums. IMLS remarked that "museums and libraries bring unique assets to youth development. [Such assets] include dedicated, knowledgeable staff; authentic objects, artifacts, and information resources; opportunities for personalized, hands-on learning; support for cognitive and social development; and experiences to help parents, families, and caregivers make learning fun and rewarding" (p. 9). Others have similarly noted the strong potential of partnerships between museums and afterschool programs for building student science engagement (e.g., NIOST, 2002; Coalition for Science After-School, 2007).

However, how best to support afterschool programs is not entirely clear (Coalition for Science After School, 2004). Afterschool programs blend features of both formal and informal learning environments. While afterschool programs, like museums, tend to be more, rather than less, learner-centered, they also are increasingly being held to more formal accountability expectations and measures. Museum educators need to

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[1] Afterschool programs can be offered by and based in either museums or afterschool organizations, in dedicated or borrowed spaces.

understand the accountability policy context in which the afterschool field is emerging, as well as how to build on "positive youth development" principles[2] as they introduce object-based, inquiry-oriented, learner-centered science to these settings. In the emerging afterschool context, museum informal science education may need to become more systematic and coherent, more attuned to the development of specific skills and understanding, and more connected with the everyday lives of children. This is no easy task for the most seasoned of educators; and as Inverness Research, the evaluators of the Exploratorium's professional development program for museum educators, the Informal Learning Collaborative (ILC), note, there are few such professional development resources for museum educators:

> There is a shortage of organized, in-depth, long-term opportunities for museum educators that would allow them to learn about the realities of "formal" education systems and policies, to be exposed to research and evaluation about formal and informal learning, and to acquire new strategies for working directly with teachers and students. Professional opportunities to reinvigorate, articulate and thereby strengthen their informal and inquiry approaches to science education have been few and far between for museum educators. (p. 3)

The Inverness report (see Supporting Documentation) shows the ILC's sucess at building professional community, exploring the boundaries of informal and formal learning settings, and blending research and practice for its 80 participating museum educators. MAPDD will build on this experience to provide museum educators with critically needed, data-driven guidance for how best to design informal science programs for afterschool audiences in ways that (1) build on the strengths and features of informal science learning and (2) take into account the constraints and opportunities of the afterschool setting. The project will be driven by what research says about informal science education, afterschool programs, policies, and partnerships. It will also draw heavily on the practical experiences and craft knowledge of participating museum and afterschool leaders.

**D. Benefits to Communities:** Afterschool programs, which have grown tenfold over the last decade, disproportionately serve students from high-poverty and non-dominant communities (Afterschool Alliance, 2006). They thus are important sites for engaging children from communities that have been traditionally underrepresented in both the sciences and in museum audiences. Increasingly, afterschool programs are also concerned with student school achievement as a gateway to career and life prospects. There is consequently growing interest in expanding subject matter activities in afterschool settings. In a national study of science in afterschool programs, Noam, Bevan and colleagues found that more than 90 percent of surveyed afterschool leaders said that they would like to expand their science programs for children. At the same time, less than 15 percent said that they had partnerships with local science informal science institutions (Noam et al., in preparation).

Museums are clearly a largely untapped content and pedagogy resource for afterschool. As IMLS, Irvine, and others note, the contributions of museums could be especially crucial as the afterschool field emerges and solidifies over the coming decade, as it becomes more or less formal, and more or less student-centered. That is, there is a desire to support students academically and cognitively, but also a desire to root such cognitive development in activities that maintain traditional features associated with learning in informal settings, such as locating the programs and work in real life and everyday problems; designing activities that are personally meaningful and relevant to students lives; and designing activities that draw on visual, aural, and embodied ways of knowing and doing science (i.e., not just verbal or text based). The work of MAPDD will strengthen the professional capacity of museum educators to provide powerful afterschool science learning, and in so doing will significantly enhance museums' roles and profiles in their communities.

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[2] "Positive youth development" refers to a programmatic approach that stresses, among other things, the need and value of positive adult-student relationships, providing purpose and active engagement for student activities, connecting activities to student's everyday life-worlds, etc.

## 2. Project Design

**A. Goals and Objectives**: MAPDD's goal is to develop a set of design principles (supported by program examples and data) that can guide museum educators' efforts to create cognitively and affectively engaging informal science learning activities appropriate for afterschool settings. In addition to the broad and ongoing reach of these tools, the project development process will provide intensive professional development for the 26 participating educators representing 13 different institutions. Project objectives include:

- **Establish** a supportive and critically minded community of educators that can build on research, theory, practice, and data to distill learning activity design principles that reflect the values and features of both informal science and afterschool settings.
- **Experiment** with the incorporation and application of design principles into existing afterschool programs offered by nine participating museums (we expect that the four afterschool programs will also experiment with their incorporation and assessment).
- **Create** assessment tools, tailored to nine different museum programs but sharing common criteria, to measure ways in which the incorporation of the design principles shape student experiences/outcomes.
- **Aggregate**, analyze, and synthesize the assessment data from the nine museum programs.
- **Publish,** in the *MAPDD Guidelines*, a summary of the design principles, the processes of their development, how they were implemented, illustrations of programs, and the assessment results/data.
- **Disseminate** the *MAPDD Guidelines* to museum and afterschool communities through professional networks, conference presentations, and posting the results on the Web sites of all participating institutions.

**B. Action Steps:** With private foundation funding, we are currently creating a robust testbed for the proposed MAPDD project. The 26 participants will meet at the Exploratorium for three days in May 2008 (see Supporting Documentation) to begin to build the relationships and understanding of each other's programs that will be essential for the collaborative, critical, and data-driven work of the project. In May, the group will grapple with core questions related to the nature of science and learning in afterschool settings. We will then brainstorm a list of tentative design principles which participants will informally observe for in their spring and summer programs, reporting back their observations using our password-protected project Web site.

*Nov 08 - Development of Draft Principles and Assessments*. MAPDD begins with a three-day workshop at the Exploratorium focusing on identifying a draft set of design principles as well as draft assessments that can be prototyped over the fall and spring (see Supporting Documentation). The workshop will include (a) viewing research videotape of informal science activities in different settings (museum, school, afterschool) and discussing affordances of each setting; (b) analyzing essential design principles of learning activities in interaction with the learning setting with consultant Dr. Edith Ackermann; (c) observations of science learning activities at afterschool programs partnering with the Exploratorium; (d) peer review of participating museums' programs and discussion of how emerging list of design principles are already embedded or could be incorporated; (e) development of draft assessment tools; (f) development of implementation plans for each museum site to test and assess draft design principles. Researchers from SRI Intl will lead the collaborative development of draft assessment tools and plans; these will be intentionally designed for ease of use by local program leaders or staff. That is, local staff will conduct the data collection, with support from SRI, using these tools. (Tools might include observation check-lists, surveys, parent interviews, etc.)

*Nov 08-Mar 09 – Piloting Principles and Assessments.* After the workshop, museum teams will experiment with incorporating the design principles into their programs, and will pilot draft data collection tools. (Participating afterschool programs will also conduct experiments and assessments, and these will serve to

illuminate the particular roles and contributions of museum programs in afterschool settings. However, in this proposal, due to space limitations, we focus on the museum activities and data collection.) Each museum team will implement a minimum of five days of informal science programming, with the same afterschool audience, that (a) incorporates key relevant draft design principles and (b) includes preliminary data collection. MAPDD assessment team members from SRI International and the Exploratorium will visit each museum for two days to help with implementation where needed, observe, help with data collection, and lead a reflection session to discuss what did and didn't work. They will also provide telephone and email support throughout.

Each of the nine museum teams will post the results of their efforts on the Web site to discuss the experience (including problems, surprises, insights, changes) and get feedback from colleagues. We anticipate that **online discussions** will provide two-way help to the teams, giving and receiving ideas and feedback. Online discussions will be mediated by the steering team, and the data will be posted and organized in ways that are easy for all teams to view. In addition, **telephone conference calls** will be held every four weeks to review and discuss the piloting process and results, allowing for other types of interactions that may be difficult for some people on-line (e.g., to be humorous, personal, frank about specific problems, etc.).

*Apr 09 – Refining Principles and Assessments.* A three-day workshop will be held in April (see Supporting Documentation). At this meeting, we will review the pilot phase data. Through presentations, critique, and discussion, the group will refine the design principles, identifying where and how principles were incorporated or not, possibly adding emergent new principles. We will review the assessment data, and work in small groups with SRI Intl to refine the assessment instruments, finalizing the core and common data to be collected across projects, as well as the program-specific measures tailored to local audiences and curriculum. Participants will leave with implementation/data collection plans and schedules for their summer and fall programs.

*Apr 09-Dec 09 – Principles Implementation and Data Collection.* Teams will incorporate finalized program design principles into their programs and conduct data collection using finalized data collection tools. Again, assessment team leaders will visit each museum site at the beginning phase to help in the implementation of the program and assessments, and will be actively checking in and supervising the process throughout.

*Dec 09-Mar 10 – Aggregation and Synthesis of Data.* The MAPDD steering team will collect all of the project data, review and synthesize it, aggregating it along common measures. The team will develop individual site and aggregated project narrative and quantitative descriptions of program implementation issues and student outcomes at all nine sites. Project participants will review at least two drafts of this document, providing comments, corrections, and suggestions regarding the important experiences and messages for the field.

*Mar 10-Oct 10 – Dissemination.* The project results will be widely circulated through professional networks, program listserves, and posted on participating museum Web sites. In addition, participants will present at relevant professional conferences. See below for details.

**C. Specific Skills, Knowledge, Experiences**: Participants will work with data and develop methods for translating research findings to program design. The processes of professional inquiry, discussion, experimentation, assessment, and sense-making will provide participants (a) a complete **cycle of professional practice working from data to design**. The project also provides participants with (b) **opportunities to exercise leadership in their respective professional communities** by sharing lessons learned and implications for the work of museum and afterschool collaborations. Finally, the project will provide participants with **(c) in-depth and first-hand experiences with assessment strategies, tools, implementation, and analysis,** building their

capacity to assess or commission assessment of their educational programs in the future.

For the museum field, the ultimate target audience of this project, the resulting publication will provide clear, practical, and data-driven guidance for the design of science programs for afterschool settings that articulates the strengths and features of informal science, how they play out in practice, how they relate to the constraints and opportunities of afterschool settings, and how they can be assessed in meaningful ways. By focusing on the process and the results of this effort, as well as the principles, this publication will provide the context for why and how such principles can be applied – what works and what doesn't.

**D. Project Management**: The project will be co-directed by a steering team of Bronwyn Bevan, Director of the Center for Informal Learning and Schools (CILS) at the Exploratorium, Diane Miller, Senior Vice President for School and Community Partnerships at the St. Louis Science Center, and Vera Michalchik, Senior Social Scientist at SRI, International. Bevan will be responsible for overall project leadership, including budget and finance. Bevan and Michalchik will comprise the assessment team who will visit and support the museum sites. The project will be coordinated at the Exploratorium by Noah Rauch, CILS Project Coordinator. Rauch will be responsible for managing the project Web site, organizing workshops, and daily budget issues.

**E. Dissemination Efforts:** Plans for sharing the results will be developed in the first year of the project. Plans will build on the extensive professional and public networks shared by project leaders and participants. We anticipate presenting results at museum conferences (AAM and ASTC), at afterschool conferences (NAA and 21st Century Community Learning Centers), as well as at research conferences (NARST).[3] The project steering team, all of whom present regularly at professional conferences, will identify topics and teams of museum and afterschool participants to present the findings at these conferences. In addition, we will draw on existing networks, such as the Coalition for Science After School and the Center for Informal Learning and Schools, to disseminate project results. Finally, all participants will disseminate findings to their respective networks.

**F. Assessment:** SRI International, working closely with participants, will lead the development of assessment instruments that test the application and impact of the design principles in museum programs for afterschool. When MAPDD starts, participants will have already spent some time critically observing their afterschool programs for the inclusion of a list of tentative design principles. At the first workshop, participants will work to refine this list into a draft set of principles. The museum teams will work collaboratively and separately to develop assessment tools (under the leadership of SRI Intl) that assess the impact of common design principles across the nine museum programs but also are tailored to local specifics. For example the programs may focus on different content areas, or work with different age groups, or consist of different timeframes, but they may seek to assess the ways in which the programs engender, e.g., student questioning and exploration.

SRI International will lead the collection of data, implemented locally by trained museum staff with in-person, online, and telephone coaching by SRI. They will also lead the analysis and synthesis of the data, illuminating the ways in which the design principles play out (or don't) in practice and how they shape student experiences. Each museum site will co-own the data collected so that they can use the data in their own formative development process, reporting, and fundraising. A final report will summarize the project results, attaching the analyzed data and supporting evidence of the reach, impact, and outcomes of the project.

**G. Partnership:** This project is highly collaborative. It has been designed and developed by Bevan, Miller, and

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[3] NAA = National Afterschool Association. NARST = National Association of Research in Science Teaching. The 21st Century Community Learning Centers are funded by the US Department of Education.

Michalchik, who have worked together on other current and prior projects. All of its activities will be developed, shaped, and disseminated by educators from 9 other museums and 4 afterschool organizations, named above. Each of the 9 museum teams are led by participants at the VP or equivalent level, who have been invited to participate, in part, because of their ability to commit time and local resources (for local project implementation) to the project and, more importantly to the project's purpose, because of their leadership and commitment to professional practices and development in the museum field.

## 3. Project Resources: Time, Personnel, Budget
**A. Timeline**: The timeline has been described above and is also included in the Schedule of Completion.

**B. Key Staff and Qualifications**: The program will be led by Bronwyn Bevan, in partnership with Diane Miller (St Louis Science Center) and Vera Michalchik (SRI, International). The team brings both respective and over-lapping expertise in (a) informal science learning and professional development, (b) youth development, and (c) research and evaluation of science learning in informal contexts. Miller is a leader in museum programs for afterschool audiences. She is an advisor to *ILSA*, a study of informal science in afterschool programs, cited above, which Bevan has co-led with Gil Noam of Harvard. Michalchik and Bevan are co-leading the evaluation and assessment of the National Science Foundation's Academies for Young Scientists program, which has funded 16 out-of-school-time science projects. It is through these studies, along with Bevan's experiences leading the Exploratorium's ILC program (cited above), that we have identified the need for further clarity and guidance on how best to design museum-led informal science learning for afterschool settings. The proposed project thus builds on and enhances existing professional relationships and collaborations.

**C. Consultants**: Edith Ackermann will serve as a consultant to the project. Ackermann, a developmental psychologist, is uniquely qualified as an expert in learning designs. She has participated in other Exploratorium learning programs, and is an insightful and engaging thinker and designer who can lend a critical and supportive eye to the work of the project participants, from research, theory, design and assessment perspectives.

**D. Facilities**: The Exploratorium has an established infrastructure to support professional development activities and networks (for example, established recruitment and dissemination mechanisms, online Web site platforms, and classroom facilities).

**E. Finance Management**: Overall responsibility for the financial management of MAPDD will reside with Bevan, who has managed dozens of grants over almost two decades at the Exploratorium, including the $11M National Science Foundation grant for CILS. Daily financial management is provided by Project Coordinator Noah Rauch under the supervision of Georgia Heise, Assistant Director of the Exploratorium's Museum Professional Development (MPD) group (which Bevan directs). Rauch provides daily supervision on other related grants, and Heise is responsible for managing the MPD group's budget of more than $4M/year, which includes a dozen grants from government and private foundations. The Exploratorium's finance and accounting department have systems to ensure compliance with all federal and state accounting rules.

**F. Matching Funds and Revenues**: The Exploratorium has secured 82% of the matching funds for the direct costs of MAPDD from the Noyce Foundation. The Exploratorium is committed to providing the remaining 18% of matching funds through general operating funds, or through the receipt of additional grant funds. We do not anticipate any revenues to be generated through this project.

**G. Benefits to and Contributions of Collaborators**: Collaborators are contributing their time, expertise, and

leadership to MAPDD, including their commitment to incorporating design principles into existing programs and testing the outcomes of the changes. The benefits of the program to participants are: (1) professional development opportunities, (2) a forum for the exercise of leadership in the field, (3) technical support from SRI Intl on the design and assessment of their programs, and (4) co-ownership of the data collected at their sites (that is participants can use the data to inform the design of programs, as baseline for future assessments, and for providing evidence in future funding proposals).

## 4. Impact
### A. Project Outcomes: The lasting outcomes of MAPDD will include:

- A set of **design principles** that can support effective informal science in afterschool. These principles can guide program design and assessment, as well as serve as a foundation for future development, inquiry, and testing of assumptions about what works best in afterschool settings.
- A **body of data** analyzed to (a) show the ways in which particular design principles can be incorporated into science activities and (b) document the resulting impacts on participating children. These data, testing common principles and assumptions across different types of settings (large and small, urban and rural, science specific and general afterschool programs), will again serve as an important foundation for future programs, curriculum, and professional development that aims to strengthen museum science programs.
- A cadre of 26 museum and afterschool educators who have studied science in afterschool and who can provide **leadership to the field**. Investing in their capacity will have long-term benefits as they leverage this capacity to inform their practices and to work with others at their own institutions and across the field.

**B. Project Reach and Sustainability**: In addition to the conference and Web site dissemination strategies discussed, MAPDD will work closely with the Coalition for Science After School to disseminate and integrate project findings (see Supporting Documentation). The Coalition serves as a resource for museums, afterschool organizations, and others seeking knowledge and tools to enhance science in afterschool settings. Through this mechanism we will reach thousands of educators specifically interested in the problems addressed by this project. In terms of sustainability, while MAPDD has an end point when the *MAPDD Guidelines* is printed, web-published, and disseminated at multiple professional forums, that series of events also marks the beginning of more widespread use of the project's products. We anticipate that the project will permeate museum programs for afterschool for many years, including raising new questions for future research, design and study.

**C. Measures of Contributions and Success**: Children in afterschool programs are disproportionately from communities underrepresented in the sciences and in museum audiences. Therefore, as the project builds museum professional capacities to increase the quality of science programs for afterschool, it extends museums programs to more economically and ethnically diverse communities than our usual audiences. In so doing, the project builds museum capacity to engage with new audiences, and, as pointed out in the Irvine and IMLS reports, strengthens the role of the museum in its community. Measures of success for the project include:
- Active participation of teams of two educational leaders from nine museums in MAPDD professional development activities and the creation of professional development tools for the field.
- Successful integration of design principles into the nine museum programs for afterschool, reaching a minimum of 1,800 children over two years (9 museums x 50 children x 4 semesters of programming) as well as an estimated 2,000 more through the participating afterschool organizations.
- Successful aggregation and analysis of the program outcome data, and the publication of the results of the study in professional and/or academic journals, co-authored by the steering team and participants.
- Development and Web publication of a set of principles, with data, to guide relevant museum practices.
- Acceptance of proposals at professional conferences for critical peer review and discussion.

# BUDGET FORM - PAGE FOUR

## Section B: Summary Budget

| | $ IMLS | $ Cost Share | $ TOTAL COSTS |
|---|---|---|---|
| 1. Salaries and Wages | 51,532.00 | 37,031.00 | 88,563.00 |
| 2. Fringe Benefits | 23,396.00 | 16,812.00 | 40,208.00 |
| 3. Consultant Fees | 51,500.00 | 48,400.00 | 99,900.00 |
| 4. Travel | 21,860.00 | 47,540.00 | 69,400.00 |
| 5. Supplies and Materials | 1,030.00 | 485.00 | 1,515.00 |
| 6. Services | | | 0.00 |
| 7. Student Support | | | 0.00 |
| 8. Other Costs | | | 0.00 |
| TOTAL DIRECT COSTS (1—8) | 149,318.00 | 150,268.00 | 299,586.00 |
| 9. Indirect Costs | 57,204.00 | 57,568.00 | 114,772.00 |
| TOTAL COSTS (Direct and Indirect) | 206,522.00 | 207,836.00 | 414,358.00 |

## Project Funding for the Entire Grant Period

1. Grant Funds Requested from IMLS  206,522.00

2. Cost Sharing:

    a. Cash Contribution  207,836.00

    b. In-Kind Contribution

    c. Other Federal Agencies*

    d. TOTAL COST SHARING  207,836.00

3. TOTAL PROJECT FUNDING (1+2d)  414,358.00

% of Total Costs Requested from IMLS  49.84%

\* If funding has been requested from another federal agency, indicate the agency's name:

| | Activity Name | Start Date | Finish Date | IMLS Cost | 2008 M J J A S O N D | 2009 J F M A M J J A S O N D | 2010 J F M A M J J A S O |
|---|---|---|---|---|---|---|---|
| 1 | MAPDD Workshop One: Development of Draft Principles and Assessments | 11/13/08 | 11/15/08 | $17,652 | | | |
| 2 | Piloting Principles and Assessments<br>- Participants' incorporation of design principles<br>- Pilot data collection using draft assessments<br>- Site Visits to individual museums<br>- Collaborative online/phone discussions<br>- Telephone and email support | 11/17/08 | 3/31/09 | $33,639 | | | |
| 3 | MAPDD Workshop Two: Refining Principles and Assessments | 4/16/09 | 4/18/09 | $17,652 | | | |
| 4 | Principles Implementation and Data Collection<br>- Program implementation<br>- Data collection/program assessment<br>- Siie visits to individual museums<br>- Collaborative online/phone discussions<br>- Telephone and email support | 4/20/09 | 12/16/09 | $62,783 | | | |
| 5 | Aggregation and Synthesis of Data<br>- Review and synthesis of data<br>- Collaborative development of project narrative and program results | 12/17/09 | 3/17/10 | $72,860 | | | |
| 6 | Dissemination<br>- Conferences<br>- Circulation through web, listserv, etc | 3/18/10 | 10/29/10 | $1,936 | | | |
| 7 | TOTAL | 11/13/08 | 10/29/10 | $206,522 | | | |

University of Washington

## NEW DIRECTIONS: Research, Service and Training in Visitor Studies

## 1. Statement of Need

"What are our visitors learning?" "Who comes to our zoo?" "How does the community view the local art museum?" These are the types of questions that evaluation can answer. When conducted in museums, gardens and zoos, evaluation is often referred to as 'visitor studies.' Visitor studies are seen by many as the best way to enhance our ability to address public good. The Visitor Studies Association describes their purpose as "understanding and enhancing visitor experiences in informal learning settings through research, evaluation, and dialogue," articulating the role that visitor research plays in creating optimal experiences. In the context of a national focus on public accountability and viable business models, and an emphasis within museums on education and community relationships, the field has increasingly turned to evaluation to answer questions about value and impact. Today, virtually all informal learning institutions and funding agencies recognize the value and even necessity of systematic and thoughtful study of the outcomes of exhibits and programs. With society's rapidly changing demographics, it is even more important to understand audiences and their needs.

Despite this recognition, evaluation is often viewed as a luxury that only big museums and big budgets can afford. Even in larger museums, gardens, zoos and aquaria, many professionals may understand the value, but evaluation is frequently done by consultants as a one-time contract, rather than embedded in the continuing culture of the institution. When evaluation is done internally, there is often a lack of understanding or appreciation for the skills and knowledge required to do effective evaluation and it may be relegated to the duties of an individual with little or no training in evaluation, potentially resulting in negative experiences or data that doesn't help the museum. Museum educators are particularly vulnerable to this pressure. While educators are responsible for facilitating learning and broader visitor outcomes, the skills and perspective needed to *facilitate* learning are not the same as those needed to *assess* learning (and other outcomes). A 2004 study conducted by the Smithsonian to assess evaluation of educational programs across the US found that "museum staff are unclear about program evaluation use, value and application" and the "level of technical expertise in conducting evaluation is low among educators." This is not surprising as evaluation and education are distinct disciplines, requiring different skills and knowledge.

Unlike many museum disciplines such as curation or collection management, museum evaluation is a relatively new practice. The field is grappling with what constitutes a trained evaluator and where or how an evaluator should be trained–in the field, through academics or elsewhere? For those interested in becoming an evaluator, there is no clear pipeline or credentials to identify an evaluator as a skilled 'professional.' Individuals completing a workshop or a single course may be viewed by their institutions (or may view themselves) as experts ready to practice. A review of museum studies websites suggests that only a handful of programs offer a course in evaluation and more often address the topic of evaluation in the context of broad courses about visitors (i.e. "Museums and the Public," "Visitor Perspectives on Exhibit Development," "Museums and Their Audience"). While these courses provide a solid

background for future professionals, they are not intended to teach the skills needed to conduct or oversee evaluation projects. A Visitor Studies Association taskforce looking at the question of professionalizing the field (including PI Morrissey), often discussed pre-service academic training as a key step in developing a stable and responsible profession.

Conducting evaluation studies within informal learning institutions not only requires professional skills, it requires skills and methodologies that are different from those that might be practiced in formal education or program venues. Museum visitors represent a range of ages, interests, skills and backgrounds. Describing the nature of their experience and attempting to measure any outcomes requires methodologies that work within the constraints of crowded galleries, limited time and varied visitor agendas. The task of developing highly skilled and thoughtful evaluators goes hand-in-hand with the task of developing innovative and robust methodologies and instruments.

*New Directions* will address these needs through the development of a model of professional training that bridges the chasm between academics and practice. The project will improve the abilities of future and current professionals to integrate evaluation into practice whether as evaluators or consumers of evaluation and partners in evaluation. As evaluation becomes more internalized and integrated into museum practice, the audiences that will ultimately benefit are the future visitors to informal learning institutions and their communities. Key audiences:

1) Students preparing to be evaluators, educators, administrators and exhibit developers will benefit from practical skills and experience with evaluation.
2) Professionals in Seattle area museums, zoos and aquaria will benefit as client partners-in-learning.
3) Evaluators across the country will benefit from the experimentation with methodologies, particularly integrating technologies.
4) Museum studies programs will benefit from the collaborative model.

Students interested in becoming evaluators will develop a range of knowledge and skills in conducting evaluation and will develop a portfolio of projects. Students interested in administration, curation, visitor services, exhibit development or other disciplines will learn more about visitors, becoming informed consumers of evaluation and more likely to support and advocate for evaluation within their institution. *New Directions* will particularly focus on educators, attempting to articulate the appropriate circumstances and skills for internal versus external evaluation.

*New Directions* will work with client museums, zoos and aquaria to conduct collaborative studies that assess the impact of their programs. This will help institutions better serve their audiences and will begin to develop a culture that is increasingly interested and engaged in visitor evaluation. The project will also experiment with utilizing media and technologies in ways that may provide the field with new tools and models for museum evaluation. This experimentation will draw on Steven's work with 'Video Traces' that allows visitors to reflect on their videotaped behavior in a gallery, layering their discussion on top of the video and creating a multi-dimensional record and reflection on their experience.

## 2. Project Design

**Project Goal: Enhance museum professionals' abilities to serve their audiences through greater understanding and utilization of evaluation.**

Objectives:

1) Prepare future professionals to enter museum careers associated with evaluation.
2) Prepare future professionals to value, understand and support visitor evaluation.
3) Encourage professional dialog about the place of evaluation within museums.
4) Encourage a commitment to and integration of evaluation in the ongoing practice of museums in the greater Seattle and Puget Sound area.
5) Test and disseminate approaches to using media and technologies to more effectively and thoughtfully study the nature of visitor experiences

**Activities and Action Steps:** There are three core components with related and integrated activities and action steps.

**A. Develop an academic strand** of graduate training in museum evaluation. The Museology Program periodically offers a special topics visitor studies course. The course will be transformed into an academic strand including an introductory course and an Evaluation Practicum laboratory offered throughout the year where students work with client museums. During the Pilot Year, the project will:

- Develop curriculum goals based on best practices and standards (i.e. AAM's CARE, Visitor Studies Association, and American Evaluation Association).
- Develop pedagogy and core principles for course activities including using facilitated dialog, peer-review of plans, mentoring and guided practice.
- Pilot test, revise and implement the course.
- Identify university elective courses in evaluation and research methodology.
- Hire Evaluation Practicum Coordinator to oversee logistics of studies.
- Articulate the steps and criteria for students to move through the Practice to Professional Continuum (below) via experience with client museums.

| Student | Data collector | Instrument Design | Project Lead/ Mentor | Professional |
|---------|----------------|-------------------|----------------------|--------------|

**B. Establish a model and structure for collaborative evaluation** with client museums, zoos and aquariums. During pilot testing, contractual documents will be developed based on the framework recommended by the American Evaluation Association and consistent with best practices in the field. This will not only protect the students but will expose professionals to the standards in the field of evaluation. As appropriate, workshops may also be conducted at client museums in response to interest. A 50% time Evaluation Practicum Coordinator will be hired to schedule data collectors, secure Human Subjects approval, and coordinate contracts between students and client museums. The project plans to hire Suzanne Perin, a graduate of the Museology Program, taking doctoral courses in UW's Science of Learning program. She has experience in evaluation at the Exploratorium and the North Carolina Museum of Life and Science.

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**C. Engage students in experimenting** with media and technology to collect, analyze, interpret and present data. Dr. Reed Stevens and colleagues at the LIFE Research Center are using methods that utilize media and technology to more fully document and explore the dimensions of the visitor experience and learning such as Video Traces discussed earlier. Morrissey is engaged in a study utilizing discourse analysis to study learning on museum blogs. These types of methods will be taught and further experimentation will focus on ways to use available technologies that may include digital video, webcams, web 2.0 applications and other resources.

**Assessment:** PI's will participate in IMLS Outcomes-based evaluation training and complete a LOGIC model and processes as recommended by IMLS. Supporting the LOGIC model, the team (all skilled in assessment) will identify outcomes that are measurable and aligned with project goals and will conduct an internal summative study with Advisors reviewing methods and results. Summative study will include an outside review of curriculum, tracking of graduates, and a survey of client museums. Advisors include nationally recognized experts in audience research, academics and museum professions.

## 3. Project Resources: Time, Personnel, Budget

**Timeline (October 2008-September 2011):**

**Pilot Test (Oct 08/Sept 09):** The first year will pilot test all components. The academic strand of training will be the responsibility of Dr. Kris Morrissey and will begin with transforming a Visitor Studies course into a mentor/apprenticeship style class to be offered at the Woodland Park Zoo and co-taught by Morrissey and Owen. The course will include zoo observations, interviews and other methods of studying visitors with class time integrating peer review, mentoring, theoretical readings and projects. Owen will develop templates and a structure for working with client museums. In spring 2009, projects will be initiated at two test sites, the Burke Museum of Natural History and the Woodland Park Zoo, under the guidance of Owen and Morrissey, with the Evaluation Coordinator managing day-to-day activities. The sites were selected as "best-case" scenarios for testing the model because they have relationships with the Museology Program and together, they represent an institution with a strong commitment to evaluation (zoo) and one with an interest but no history of ongoing evaluation (museum). Students completing the course will be eligible to participate in the spring projects.

Over the summer, Dr. Reed Stevens will develop a research plan for engaging students in technology-rich methods to better understand visitor learning and experiences. Summer will also include an Advisors' Meeting to review pilot testing and plan for full implementation of a two-year cycle of the program beginning with Fall 2009.

**Phase One and Two Implementation (Oct 09/Sept 2011):** Years Two and Three will represent a full cycle of the two year iteration of the training cycle beginning with a new cadre of students entering in the Fall of 200909 and activities integrating a stronger role for media and technologies. The cycle for each year will include a fall course for new students and Evaluation Practicum throughout the year for conducting studies with client museums. Each year, the cadre of students completing the course may enter the practicum as data collectors, working side by

side with second year students, who along with the Evaluation Coordinator, will provide leadership and mentoring support. Morrissey and Owen will provide final oversight and approval of all evaluation plans and reports, but will place increasing responsibility for developing instruments and data collection methodologies on the students with the objective of preparing them to move into project management positions by their second year. A minimum of thee new client museums will develop contracts with the project in 2009 and four museums in 2010. Client museums for 2009 have already signed letters of commitment (Northwest African American Museum, Pacific Science Center and the Henry Art Gallery). Other museums have already expressed interest for 2010. *New Directions* may also collaborate with outside evaluators, providing trained data collectors, while providing students with access to additional mentors and experience. Each summer will also include a survey of client museums to assess impact of completed projects. Summer 2009 will include a summit to discuss the success and future of the work with media and technologies, and to plan for the sustainability of the project. Phase Three (Year Three) will include evaluation, revisions and graduation of the first cadre to complete the cycle. Assessment will include an exit interview and follow-up on their entry into professional fields.

**Key Staff:** The triad of PI's and their associated institutions bring a tremendous wealth of resources, passion and expertise to this project. **Dr. Kris Morrissey** will be the lead PI and project administrator. She has a PhD in Educational Technology and over fifteen years experience teaching and directing museum studies programs and museum education at Michigan State University and is now Director of Museology at UW. She was on the board of the Visitor Studies Association and was the founding editor of the publication *Visitor Studies Today*. She will contribute 30% of her time in year one and 20% in subsequent years providing project leadership and course instruction. This contributed time is highly aligned with Museology's strategic goals and values of innovation and professionalism. **Dr. Reed Stevens'** research focuses on learning and activity in a wide range of places and situations including classrooms, design-centered and scientific workplaces, and science museums. His interest in understanding how people make and use knowledge led to the design of software that allows people to collect digital video clips and annotate them with talk or gestures. These 'video traces' have been used to look at how visitors learn in museums across the country. He will contribute 10% of his time during the academic year and the grant will support an additional month of summer salary for the project. **Kathryn Owen** is an in-house Audience Research Coordinator and is involved in national projects such as ZATPAC, a multi-institutional study strengthening the ability of the nation's zoos and aquaria to assess their impact on teen volunteers. She brings a strong background in adult learning and has served as a mentor to area professionals interested in evaluation. The project will support a percentage of her time and is matched by time contribution from her assistant.

**Facilities:** The Woodland Park Zoo is a large urban zoo with upwards of a million annual visitors, creating a dynamic laboratory for classes. The project has access to the tremendous infrastructure of the University of Washington, particularly drawing on the resources of the LIFE center and the Museology Program.

**Partnership:** This project is closely aligned with the mission and expertise of each of the three partner institutions, allowing significant buy-in and contributions of time and resources.

University of Washington's **Museology** Program is a two-year interdisciplinary graduate program with approximately 55 full-time students. The Learning in Informal and Formal Environments **(LIFE)** Research Center is an interdisciplinary collaboration of scientists examining learning from multiple perspectives, from sociocultural studies in museums to cognitive studies in the classroom to present a more coherent portrait of human learning. The **Woodland Park Zoo** is one of the oldest zoos on the west coast and encompasses 92 acres with more than 1,000 animals in bioclimatic zones. The zoo is known for its visitor-centered approach as exemplified by its unusual commitment to full-time evaluation staff.

An **Advisory Team** was crafted to balance expertise in evaluation, museum studies and professionals representing best practices in the field. Advisors include: **Dr. John Falk**, Professor of Free-Choice Learning at Oregon State University and President Emeritus of the Institute for Learning Innovation; **Marjorie Schwarzer**, Chair of Museum Studies, JFK University and author of *Riches, Rivals & Radicals: 100 Years of Museums*; **Randi Korn**, Principle Randi Korn & Associates, Inc. museum research and evaluation company; **Patterson Williams**, Deputy Director of Education, Denver Art Museum; **Julie Johnson**, Distinguished Chair of Museum Leadership, Science Museum of Minnesota and Chair of VSA Professional Development committee.

## 4. Impact

**Outcomes:** *New Directions* provides a structure for students to develop professional skills through a continuum of practice, while learning side by side with local professionals who will also explore the value of visitor research. While the field has often debated whether professionals are best prepared through academics or on-the-job training, *New Directions* suggests that the ideal may be a hybrid approach that draws on best practices in the field and in academics. One important outcome of this project may be the beginning of an academic pedagogy that is consistent with the values, needs and constraints of informal or free-choice learning environments.

Outcomes include:

- New professionals will be prepared to either conduct evaluation or to value and support evaluation in their institutions.
- Participating museums will learn how evaluation may help them better serve their audiences and address their mission.
- Evaluators in the field will benefit from the results of experimentation integrating technologies into visitor studies.

**Specific knowledge, skills and abilities:** Students will learn the purpose and value of visitor studies, how to frame an evaluation question and how to align methodologies with questions. Students will learn specific skills for conducting front-end, formative, summative and remedial evaluation including observations, interviewing and conducting surveys. Overarching skills include writing and thinking critically, communication and project leadership. Graduates

entering the field as educators, exhibit developers, collection managers, visitor services and administrators will be prepared to make informed decisions about how and when to administer studies or to use outside evaluators. Staff at client museums will learn about their visitors and about the discipline of visitor studies and available resources.

**Sustaining the initiative:** *New Directions* describes and tests a model of training future professionals that draws from best practices in informal and formal education. The success of the model will be judged on a number of factors including placement of graduates and feedback from client museums. If the model is successful, the Museology Program is committed to finding ways to sustain this project, and to transform other coursework into this model of community-academic practice. As a self-sustaining program within the university, the Museology Program has an unusual amount of independence in allocation of tuition dollars and will work to develop a financial base for the project that may combine tuition dollars, client fees, and outside sources of funding. Research on ways to integrate media and technologies to advance visitor research is a relatively new area of study. It is expected that *New Directions* will spark research questions that will lead to graduate thesis work (particularly in Museology and the UW's Science of Learning Graduate Programs) as well as research proposals.

**Dissemination:** Each client site will be asked to identify at least one way they will implement and share the results of the study conducted at their site. Project PI's will share results of *New Directions* (successes, barriers and limitations) at local, regional, and national conferences including American Association of Museums, Association of Science and Technology Centers, Museums on the Web, and Association of Zoos and Aquaria. A professional publication about the project will be available free in print and online. A one page summary of each of the studies will be included as well as copies of the instruments used. Readers will be reminded that no instrument can be viewed as a recipe for their own site, yet the structure of the instruments and questions will provide a model and starting point for their own evaluation efforts and may reinforce the importance of working with professionals.

The project will host an annual 'Learning About Visitors' Open House for local professionals with poster presentations of the year's studies. The Open House will provide a professional experience for students to present their work and will expose local professionals to the results, while potentially recruiting new client museums.

**Summary:** As one of the world's leading research institutions, the University of Washington is committed to integrating research and academics and pledges to provide its students with "exceptional hands-on learning experiences that prepare them to excel in the knowledge-based economy." *New Directions* will model this philosophy by integrating research, academics and public service, providing a model and standard for future practice.

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Reference:
*The Evaluation of Museum Educational Programs: A National Perspective.* Smithsonian Institution. Office of Policy and Analysis, March 2004

# BUDGET FORM: Section B, Summary Budget

|  | $ IMLS | $ Cost Share | $ TOTAL COSTS |
|---|---|---|---|
| 1. Salaries and Wages | $83,136.00 | $95,362.00 | $178,498.00 |
| 2. Fringe Benefits | $22,274.00 | $25,941.00 | $48,215.00 |
| 3. Consultant Fees | $0.00 | $0.00 | $0.00 |
| 4. Travel | $5,267.00 | $14,169.00 | $19,436.00 |
| 5. Supplies and Materials | $5,900.00 | $1,500.00 | $7,400.00 |
| 6. Services | $43,930.00 | $50,802.00 | $94,732.00 |
| 7. Student Support | $0.00 | $0.00 | $0.00 |
| 8. Other Costs | $25,230.00 | $10,860.00 | $36,090.00 |
| TOTAL DIRECT COSTS (1-8) | $185,737.00 | $198,634.00 | $384,371.00 |
| 9. Indirect Costs | $92,404.00 | $82,786.00 | $175,190.00 |
| TOTAL COSTS (Direct and Indirect) | $278,141.00 | $281,420.00 | $559,561.00 |

## Project Funding for the Entire Grant Period

1. Grant Funds Requested from IMLS    $278,141.00

2. Cost Sharing:

   a. Applicant's Contribution    $281,420.00

   b. Kind Contribution

   c. Other Federal Agencies*

   d. TOTAL COST SHARING    $281,420.00

3. TOTAL PROJECT FUNDING (1+2d)    $559,561.00

Percentage of total project costs requested from IMLS    49.7 %

*If funding has been requested from another federal agency, indicate the agency's name:

# New Directions Schedule of Completion

|  | **Fall** | **Winter** | **Spring** | **Summer** |
|---|---|---|---|---|
| **2008/2009** | Pilot Planning | Course | Pilot Projects | Pilot Projects |
| **Pilot Test** | Advisors Meeting | Dev contracts | Open House | Develop Tech plan |
| Oct. 08-Sep 09 | | | | Advisors Meet |

|  | **Fall** | **Winter** | **Spring** | **Summer** |
|---|---|---|---|---|
| **2009/2010** | Course | | Open House | Tech Summit |
| **Phase One** | Evaluation Projects | | | |
| Oct. 09-Sep 10 | | | | Advisors Meet |

|  | **Fall** | **Winter** | **Spring** | **Summer** |
|---|---|---|---|---|
| **2010/2011** | Course | Dissemination | Summative eval | Advisors meet |
| **Phase Two** | Evaluation Projects | | | |
| Oct. 10-Sep 11 | Student mentors and Project Leaders | | | Publish Report |