True Needs True Partners



MUSEUMS and SCHOOLS
TRANSFORMING EDUCATION

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About the

Institute of Museum Services

Established in 1976, the Institute of Museum Services supports museums' educational role through grant programs that encourage outstanding museum management and comprehensive collections care practices. IMS is the only federal source of operating support for a diverse group of museums that provide learning opportunities to 600 million visitors each year. The director of IMS receives policy guidance from the fifteen-member National Museum Services Board. The director and board are appointed by the President and confirmed by the Senate.

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Foreword

by Richard W. Riley

This book should be a great help

to any educator, parent, or community member seeking to improve their students' academic achievement and love for learning. Museums are treasure houses of materials that enliven our past, stimulate our enjoyment of the present, and help introduce our future.

After reading Diane Frankel's review of museum-school relationships one can only be thankful to be living in a time when museums and schools are rediscovering each other in ever new and more profound ways. By building local partnerships between schools and museums, you are strengthening two basic community institutions, and that is good news for children and families—and for our future. I thank all the schools and museums who participated in this leadership initiative.

One of the many pleasures of my governorship was orchestrating the conversion of an old textile mill (what had been the first electric textile mill in the country) into a state-of-the-art multipurpose facility housing an interesting combination: the South Carolina State Museum and the South Carolina Tax Commission. They were, of course, separate entities, but they shared the building and parking facilities, and I think there must be some benefit in reminding museum visitors of the source for much of the funding the museum receives and in helping tax-payers see, in part, what their good citizenship provides them. One thing

Richard W. Riley was appointed U.S. secretary of education by President Bill Clinton after serving as governor of South Carolina for two terms. As governor, he spearheaded a comprehensive reform of the state's school system, bringing together a coalition that included business people, educators, and parents. He has continued to build bipartisan coalitions as secretary of education, helping to refocus national attention on positive solutions to challenges in education.

we knew must be part of the museum's mission is its obligation to reach out to schools and smaller museums all around the state. To have combined all that in a place that celebrates the natural history, arts, technology, and history of South Carolina is of much importance to my children, my grandchildren, and me.

I hope that schools and museums will take heart from this book of inspiring examples. I hope that readers will not be shy about approaching their elected officials for help in finding creative solutions to the challenges they encounter as they seek to enhance educational opportunities for their communities' students. It is a challenge well worth the effort. I thank Diane Frankel for her leadership in providing support, through the Institute of Museum Services, for improving the education of so many students around our country.

True *Needs*True *Partners*

by Diane B. Frankel

Imagine that you are a fifth-grade teacher who has just found out your curriculum is changing to include a half-year unit on Latin America. You are apprehensive, to say the least, because you know very little about Latin American cultures. Although you have always been able to find creative solutions during your 10 years of teaching, this time the resources available to you just aren't adequate.

Still mulling over your options, you run into a teacher from the local art museum. You know her casually from the many field trips you have taken with your students over the years. When you mention your problem, she nods and says that she just might have a solution. She promises to call the next day. Not only does she call, but she has already spoken to the head of the museum education department, and they both want to come to see you. She sounds excited but mysterious, and she won't give you a clue about their ideas.

That was three years ago, and the collaborative program that the museum developed with your entire school system is the result of that first fruitful conversation. As a teacher, you described a real problem, and they proposed a real solution. After a needs assessment confirmed the system-wide shortage of teaching resources on Latin America, the museum's pre-Columbian collection became the core of an exciting social studies curriculum for all the fifth-graders in your community. This

Diane B. Frankel is director of the Institute of Museum Services. The role of the museum as an educational institution has been a focus of her career. Most recently, she was founding director of the Bay Area Discovery Museum in Sausalito, California. She has also held positions at the Center for Museum Studies, John F. Kennedy University, San Francisco, and at the San Francisco Museum of Modern Art. collaboration has been one of the richest experiences you have had as a teacher. You and your students will never think about learning in the same way again.

This is just one of the stories you will read in this book—stories about museums and schools working together as partners to craft real solutions to the challenges in education today. The common thread is this: when a partnership is developed in response to an expressed need, the result is a transformative experience. Teachers, students, and museum educators never think about learning in the same way again.

Is this change in the relationship between museums and schools genuine and deeply rooted, or is it just another educational fad? My conversations with colleagues in the museum field and in education confirm that a new national vision of partnership is emerging, a vision that will bring lasting change in both museums and schools.

Almost from the time museums were established in the United States, educational programs have been part of their fare. Museums have always defined themselves as agents of education, and their educational mission has influenced their programs and activities. While there was never a question about whether museums were educational institutions, the relationship between museums and schools has been slow to evolve.

Adults were seen as a primary audience in the early days. In the 1920s and 1930s, John Dewey's educational philosophy, with its emphasis on learning by doing, caught on in the schools and encouraged the relationship between the elementary school and the museum. The principal educational component for elementary students was the field trip. Teachers brought their classes to the museum for a rapid race through the exhibition halls. Museum staff usually led students into the galleries, letting objects and exhibitions speak for themselves. This approach proved more or less satisfactory for the students and the museum, and it continued to dominate the museum-school relationship for many years.

Over time, museums began to look more critically at the role they could play vis à vis schools. They decided that they had a true educational role and that the museum could be a place where significant learning could occur. As their education staffs became more professional and more familiar with the needs of their audiences, museums organized more substantial programs. They invited active participation in learning by making their collections accessible and providing firsthand experiences with real objects.

Gradually, what was once experimental became usual, and what was once imagined became traditional. Creativity flowed as museums began to try innovative approaches with schools. Teachers could take advantage of outstanding original programs just by calling and making an appointment for their classes. Docents visited the classroom, met the same group of students back at the museum a week later, led small groups of children into exhibitions, and provided a number of models for interactive teaching and learning. Federal agencies and private foundations supported some of these endeavors.

My own venture into museum education began in the 1970s. Then museum educators felt a sense of euphoria. We were making a difference by engaging students in an interactive educational experience. There was a problem, however: Many museum educators were planning programs that classroom teachers enjoyed and participated in but continued to see as "add-ons." There was no systemic support for the teaching going on in museums or for the programs being offered. If museum directors and school administrators knew about these programs, they probably endorsed them. But they were not engaged in making programs for schools a priority, so relationships between teachers and museum educators remained informal.

While my analysis may seem harsh, my conversations with other practitioners over the years indicate that others have shared my experi-

ence. But things have changed during the past decade. As museum education departments came of age and school systems defined what it means to educate their students, they began paying serious attention to how they could work together formally. Schools have articulated real educational needs, and museums have proposed real solutions. If a museum has a collection or an exhibition that can make a concept in the curriculum more vivid, if a teacher can integrate what the museum has to offer into a curriculum package, the museum program becomes essential.

True collaborative programs that involve partnerships blessed at the highest levels of both educational institutions are beginning to emerge everywhere. As museum educators respect school educators as equals, they have become more sensitive to developing programming that applies directly to what is happening in the classroom. As teachers watch students who have problems with traditional learning models come alive in museums, they find new ways to reach these students. As directors and board members view education as a core principle of a museum, they endorse and actively support the formation of long-term relationships with schools. In the ultimate partnership, a number of museum schools have opened, and many more are on the horizon. Technological advances, which are having a strong impact on the way we educate our youth, also have tremendous potential to enrich museum-school partnerships.

Museum educators are feeling euphoric again, and rightly so. I believe that new partnerships like those described in this book are signs of profound change. The need to educate our young people is so great, and the problems are so enormous, that no educational institution can afford to sit on the sidelines. There will be moments of hesitation and questioning about the value of these partnerships, but the successes will so outweigh the concerns that we can look forward to many more fruitful collaborations between these two different but compatible educational institutions.

As head of one federal agency that supports these partnerships, I acknowledge that one of the critical issues still to be tackled is funding. Grants from public or private sources can provide start-up funds, but all too often the program disappears when the money runs out. Outside funding is useful to begin a museum-school program, but then the program must become an integral part of the institutional budget.

About This Book

True Needs, True Partners: Museums and Schools Transforming Education results from the Institute of Museum Services Museum Leadership Initiatives program, which provided planning grants in 1994 to help museums and schools extend and deepen their relationships. One intent of the program was to learn about relationships that exemplified the best practices and to promote similar relationships nationally. More than 300 institutions applied, and fifteen received grants; unfortunately, many excellent programs were not funded. In 1995, the IMS Museum Leadership Initiatives grants focused on the same topic but included implementation as well as planning. Again we received many more applications than we could fund, and again we were impressed with the outstanding work in progress throughout the country.

Although this book is aimed primarily at a museum audience, it is also a guide for school educators who want to work in partnership with their museum colleagues. The fifteen projects described in the following pages—all of which received Museum Leadership Initiatives grants in 1994—exemplify the tremendous potential for forging alliances. The educators who joined in these efforts are refreshingly honest about their challenges and justifiably proud of their successes. Their firsthand experiences, which are related in "Partnership Profiles," reveal that a successful collaboration has identifiable characteristics. "Conditions for Partnership" outlines twelve factors that should form the foundation when museum

educators and school educators seek true partnership.

The two essays that conclude this book are based on presentations at the IMS conference, "Museums and Schools: Partners for Education," held in November 1995. From the museum perspective, Robert Sullivan writes of the compelling need to "offer a counterbalancing curriculum, stressing the development of critical judgment, awe, piety, sensitivity, empathy, affection . . . to transform and improve learners." From the perspective of formal education, Paula Evans describes the innovative work of the Coalition for Essential Schools, a national reform effort aimed at redesigning high schools so that they, too, can transform and improve learners.

Measured against the long history of museums working with schools, what makes these fifteen partnerships different is their grounding in true needs. We believe that they exemplify the best practices at work today in education, both in museums and in schools. They suggest a variety of avenues for cultivating relationships, inviting dialogue, and pursuing solutions together. Most important, they testify to the value of museums planning *with* schools, not *for* them. The result can be true partnership and—for the nation's youth—true learning.

For guidance in building and sustaining partnerships, we turned to the educators who created the programs supported by Museum Leadership Initiatives grants in 1994. What were the strong points of their partnerships, and where did they encounter challenges? What advice would they give colleagues who want to pursue similar collaborative efforts? These profiles, based on the museums' reports of project activities, present the highlights of each partnership and include the participants' own reflections on their experiences.

Strong testimony to the process and the results of partnership comes from Bruce Evans, president and chief executive officer of the Mint Museum of Art:

From my vantage point, it was like watching a tornado develop. The first contacts between museum educator and curriculum specialist were tentative, exploratory. As the trust level built, so did the intensity of thinking. Then other players joined the game: first computer-based learning consultants, then teachers, then students. The project had taken on a life of its own. The final result really is a tribute to community-based teamwork.

Involving parents enriches the experience for students and pays off in the form of sustained parent interest in the museum as an educational institution.

Museum educators need to recognize the complexity of school schedules and the importance of planning, and teachers need to understand the cooperative nature of exhibition development and the museum's role in educating children.

Autry Museum of Western Heritage / Mount Washington Elementary School

Los Angeles, California

Cooperative Learning in the Museum Classroom

Of more than 1,000 public-private partnerships at 700 schools in the Los Angeles Unified School District, the collaborative effort between the Autry Museum of Western Heritage and Mount Washington Elementary School is the only one involving a museum. With a Museum Leadership Initiatives grant, museum and school educators spent the 1994–95 academic year working together to develop a new curriculum based on the multicultural character of western communities, family heritage, and museum skills.

As the fifth-grade students used cooperative learning techniques to investigate primary source material and hands-on replicas, the museum's Spirit of Community Gallery became a learning laboratory for exploring the personal stories of families who settled the American West from the 1890s to the present. Students discovered the process of exhibition development, collected their own artifacts, researched their family histories, and wrote label copy and related essays. The exhibition they produced, *A Gallery of Our Own*, illuminated the rich mosaic of their cultures and communities.

Parent and community participation was among the most successful aspects of the project. Even though the museum-school partnership was strong, both partners benefited from involving others in the community.

At first, museum staff confronted the challenge of parents' busy schedules. But when it became clear that the museum was serious about using the partnership to enrich their children's education, parents began to take a sincere interest. Now, many see the important contribution the museum makes, and the museum has begun to develop a core

group of parents who want to be involved in the next project. Teachers, curators, elders, and professionals from various parts of the community also were excited about lending their expertise once they realized that the museum and school partners were interested in them and their heritage. They contributed many volunteer hours and invaluable guidance to the project.

For more information: Cynthia Harnisch, Director of Education and Programs, Autry Museum of Western Heritage, 4700 Western Heritage Way, Los Angeles, CA 90027–1462, 213/667–2000

Ideas and notes:

Partners' Voices

"Each partner was required to set aside time for lesson planning, brainstorming, understanding the nature of each other's work flow, and just discussing the project. As a result, the partners had more access to students, teachers, and community partners than we would have had working separately."

Elizabeth Smith, Teacher, Mount Washington Elementary School

"To me, this project means that the museum is trying to get students to be a part of the museum and learn more about it."

Patricia, Student, Mount Washington Elementary School.



A partnership cannot be accomplished without time—not simply the time required for planning and implementation, but the long-term commitment that evolves over the years as the partnership matures.

Through carefully crafted bonds among school administrators, teachers, parents, members of the community, and museum educators, a productive synergy can result where no relationship existed.

Byron Public Schools #531 / Minneapolis Institute of Arts

Byron, Minnesota

A Theoretical Framework for Art Museum Education

The partnership between the Byron, Minnesota, Public Schools and the Minneapolis Institute of Arts is based on the belief that if art museums are to survive as public educational institutions, they need a committed and educated audience. Achieving an educated audience requires building a sound theoretical framework for learning in the arts—a teaching and training program that addresses and involves the needs of the learner, the school, and the community.

Most research in museum education has revealed only fragmentary information about how we develop the thinking skills we need in order to respond to a work of art. In their Museum Leadership Initiatives project, the institute and the Byron schools continued an innovative five-year arts-in-education partnership to extend and refine museum and school educators' understanding of this learning process.

The partners want to uncover insights that are truly useful and meaningful to educators and their students. This goal requires working with students and teachers over time. The longitudinal study tracks the aesthetic development of 100 randomly selected primary and intermediate school students and twelve primary school teachers. Findings from other studies—at Bard College in upstate New York, at the Museum of Modern Art in New York City, in St. Petersburg, Russia, and in Urbana, Illinois—inform the research in Byron.

Students in the rural, primarily agricultural community of Byron generally do not visit the museums and cultural institutions in Minneapolis, nearly two hours away. But administrators, teachers, and the community support a strong art program. The school system has given its wholehearted commitment to the partnership, providing busing for all

students to the museum and substitute teacher stipends on the days teachers attend meetings or seminars.

The current program components include professional development for administrators and all teachers in kindergarten through seventh grade. Teachers use a sequential Visual Thinking Strategies Curriculum® (VTS) in both museum and schools, and every student visits the museum once a year. Artists-in-residence, community programs, and an annual spring Arts Festival are also integral to the partnership.

The curriculum and professional development that result from the study are adaptable to other sites. Working together, the Minneapolis Institute of Arts and the Byron schools have forged a research-based partnership that will eventually make a difference not just in Minnesota, but in the teaching of art in schools and museums across the country.

For more information: Catherine Egenberger, Project Coordinator, 509 4th Ave., NE, Byron, MN 55920, 507/775–7123

Kate Johnson, Chair, Education Department, Minneapolis Institute of Arts, 2400 Third Ave. So., Minneapolis, MN 55404, 612/870–3188

Abigail Housen, 213 Brattle St., Cambridge, MA 02138, 617/492–5488

Ideas and notes:

Partners' Voices

"Museum educators need more time and contact with students to get to know and understand students' developmental needs so they can help make the museum experience relevant to the classroom curriculum. Teachers need more time for professional development, peer interaction, and thoughtful reflection. The exciting thing about museum-school partnerships is that they offer both partners these kinds of opportunities."

Catherine Egenberger, Project Coordinator

✓ Understand the school's teaching philosophy and style so learning in the museum is as effective as in the classroom.

Use a museum coordinator in the school to promote immediate rapport with teachers, facilitate scheduling and planning, and make the collaboration comprehensive within the entire school.

Carnegie Museum of Art and Carnegie Museum of Natural History / McCleary Elementary School

Pittsburgh, Pennsylvania

Melding Museums and Curriculum

Not long after this museum-school relationship got under way, some McCleary Elementary School students were overheard fantasizing about building a tunnel between the museums and their school so they could visit any time they wanted to. Their enthusiasm is evidence of a partnership that is winning students over to new ways of learning. For them, the Carnegie museums are more than just a field trip; they are an integral part of daily life in their school and community.

Students at McCleary had tested lower than their counterparts across the Pittsburgh Public School District, so the school had been restructured to meet their needs. The teaching philosophy emphasizes language-focused, developmentally appropriate, theme-based, and interdisciplinary learning. The teachers develop their own curriculums and allocate flexible blocks of time for long-term interdisciplinary projects. This structure allows a subject to be studied in depth, an approach consistent with the research and development procedures that are basic to museum culture.

The purpose of the partnership was to make museum resources a seamless part of learning at McCleary. Teachers and the museum coordinators chose four themes for collaborative planning. Students studying rivers, for example, examined river ecosystems through the Museum of Natural History and artists' representations of rivers through the Museum of Art. Students and teachers at McCleary came to value the museums in many different ways—as resources for learning, to stimulate ideas for projects, and for enjoyment individually and with their families.

The use of a museum-school coordinator from each museum was

a positive factor in this partnership. Working up to 15 hours a week at the school, the coordinators created programs based on teachers' requests and collaborated with museum staff to offer appropriate activities. The McCleary School staff, in turn, suggested innovative, inquiry-based teaching methods that enhance the museums' abilities to respond to different learning styles. This exchange of philosophies and methods enriched the experience for both teachers and museum professionals.

For more information: Marilyn Russell, Curator of Education, Carnegie Museum of Art, 4400 Forbes Ave., Pittsburgh, PA 15213, 412/622–3374

Judith Bobenage, Chair, Division of Education, Carnegie Museum of Natural History, 4400 Forbes Ave., Pittsburgh, PA 15213, 412/622–3375

Ideas and notes:

Partners' Voices

"Imagine the following outcomes from a partnership: parents and children become regular museum visitors; children
feel ownership in the museum;
teachers see the museum as being as much a part of the school
as the library; a number of children tell you, 'I'm thinking of
working in a museum when I
grow up.' When these outcomes
happened, we knew our collaboration had been a success."

Mary Ellen McBride, Principal McCleary Elementary School

Many educators still think only of field trips when they think of museums. Schools need more information about museums and more meaningful contact with them to change this stereotype and promote full use of museum resources.

✓ Don't hesitate to change course in a partnership project if you find that your goals and expectations are not what you thought they would be. Listening sensitively may yield far more significant goals.

Chester County Historical Society / West Chester Area School District, Downingtown Area School District, Tredyffrin-Easttown School District

West Chester, Pennsylvania

Expanding Resources for Secondary School Teachers

The Chester County Historical Society (CCHS) has an impressive record of serving the educational needs of elementary schools in its region. But the staff recognized that, like most museums, it was less effective in reaching secondary school audiences. High school students are well positioned intellectually to use museum materials, but logistical considerations restrict class visits, and teachers often know little about the breadth of resources available.

The society's Museum Leadership Initiatives project was designed to provide workable ideas for creating museum education materials that would reach high school students, motivate teachers to use museum resources, and sustain a flow of information to schools. The project coincided with a major expansion that tripled CCHS's facilities as well as with a statewide mandate for school reform. The project team included one teacher from each middle school and high school in three school districts. Working with them were four university-level consultants, experts in teaching methodologies and educational technology, and the CCHS education staff. Together they examined a series of museum education formats to determine which was most suitable for secondary school audiences.

After two needs assessments and several meetings, the project took an unexpected but positive turn. No single format emerged as the best method for extending museum resources into the classroom. Instead, the teachers were far more interested in grasping the nature of the museum environment as an educational resource. They felt the key to effective partnering at the secondary level was to offer teachers more ex-

posure to the museum culture, the methodology of teaching with objects, the scope of ideas represented in the CCHS collections, and hands-on opportunities with teaching materials.

This change of direction gave the project a new vitality and scope. It also enhanced the concept of a planned teacher resource center. Instead of being a repository for teaching materials, it will be a dynamic pre-service and in-service educational center that invites teacher participation in learning about and developing museum education materials. The center will also be the focal point for exploring the educational possibilities of the Internet.

As a result of the Museum Leadership Initiatives project, CCHS introduced a comprehensive program of teacher services for 1995–96, including an introductory in-service workshop, subject-specific teacher forums, and credit courses in museum education techniques given through the Chester County Intermediate Unit, a division of the state department of education. Museum internships offered for continuing education credits, incentive grants to develop new museum-school materials, and Internet and e-mail services complete the package.

For more information: Beverly Sheppard, Associate Director, Chester County Historical Society, 225 North High St., West Chester, PA 19380, 610/692–4800

Ideas and notes:

Partners' Voices

"Start small, but think big. Cultivate the friendship of one or two teachers. Get them involved with an eye to how they and their students will benefit. As the word spreads, so will the participation of others."

Tom Beccone, Teacher Downingtown Senior High School

"Museums hold the major responsibility for creating accessibility to and understanding of the extraordinary range of educational resources we can offer to schools. Schools need more information about us. If we want true partnerships, and if we want to be more than 'enrichment' or 'add-ons,' we will have to work hard at meeting real needs in the school environment."

Beverly Sheppard, Associate Director, Chester County Historical Society

Working and thinking together in the community is a key component of a viable partnership. Future EcoCit activities will include more opportunities and invitations for the community to participate.

Research yields valuable information—both quantitative and qualitative—that can guide the priorities of a partnership and lead to improved learning experiences.

Chicago Academy of Sciences / Roald Amundsen High School and Seven "Sender" Elementary Schools

Chicago, Illinois

Nurturing Eco-Citizens

Ecological Citizenship (EcoCit), the Chicago Academy of Sciences' community-based outreach education program, owes its effectiveness to partnership. This spiraling environmental curriculum for kindergarten through twelfth grade is designed by, for, and with the urban students, teachers, and parents it serves.

EcoCit is now in place at seven elementary schools that feed into the high school in Chicago's Amundsen neighborhood. With its Museum Leadership Initiatives planning grant, the academy looked at how well the program is working for students and teachers in these schools and planned for future collaboration. They used research findings to confirm that formal and informal educational institutions can forge effective partnerships with broad benefits.

As a result of their participation in the EcoCit program, teachers expressed greater confidence in teaching science and environmental education, and students increased their knowledge of environmental issues while developing a heightened sense that they can take action and make a difference. From the community needs assessment conducted during the Museum Leadership Initiatives project, the academy gained vital insights that will help staff and teachers customize the curriculum for a school's particular needs, develop service-learning projects, and adapt teacher in-service training.

Through the EcoCit program, the Chicago Academy of Sciences has developed a strong partnership with Amundsen High School (the city's first environmental high school), its "sender" elementary schools, and their community. In addition to serving students' learning needs in

the classroom, the program is a catalyst for learning through community service and for gaining a stronger sense of identity, ownership, and empowerment. It is a convincing example of how museums can take advantage of their expertise in informal learning to play an active partnership role in their communities.

For more information: Carol Fialkowski, Vice President of Education and Exhibits, Chicago Academy of Sciences, 2001 N. Clark St., Chicago, IL 60614, 312/549–0606, ext. 2028

Ideas and notes:

Partners' Voices

"Students must have stimulating and challenging activities that allow them to relate reallife experiences to those of the museum."

Colleen Quinn, Teacher Waters Elementary School

"Rather than approaching the situation with the attitude that we can save them, museum and community members—teachers, administrators, and parents—can work together to identify needs and meet them. To promote change and to be a member of the community, museums must concentrate on audience involvement."

Carol Fialkowski, Vice President of Education and Exhibits, Chicago Academy of Sciences

✓ Successful collaboration takes time, patience, and flexibility. Understand that lasting results emerge as the partnership develops and solidifies.

✓ Frequent and detailed communication with parents through meetings, phone calls, and printed materials strengthens the partnership and builds trust.



Chicago Children's Museum / Hartigan School and Center for Successful Child Development

Chicago, Illinois

Parents as Partners

At Chicago's Robert Taylor Homes, one of the nation's largest and poorest public housing developments, the Chicago Children's Museum is working to break down barriers that inhibit low-income families from seeking and gaining access to enriching educational opportunities. In an environment that has few resources to offer, the everyday work of being a parent becomes an even greater challenge.

Through Taylor Action, begun in 1992, the museum offers extension programs that stimulate the social, emotional, and intellectual growth of parents and their children. Among these programs are two joint efforts with schools: the Hartigan School's Books Alive! program and the Center for Successful Child Development's Preschool/Parents Partnership Program.

A year after the inception of Taylor Action, evaluation results revealed the need for greater parental participation. Museum and school staff conceived the idea for Parent Networks that would provide a framework for involvement. As more parents are motivated to participate, they become models for others in the community. And when parents are excited about learning, their children become excited, too.

The Hartigan School network's first year demonstrated the power of partnership. With the assistance and encouragement of museum and school staff, parents assumed leadership roles in the network; planned family field trips, a weekly tutoring program, and enrichment activities; held workshops on parenting topics; and helped develop in-school programming for Books Alive! As a result, they could point to strengthened relationships with the museum, the school, and their children.

The preschool network encountered obstacles in its development. Mindful that viable collaboration develops with time, the museum hopes that staff changes at the preschool will bring greater stability to this aspect of Taylor Action in the future.

The Chicago Children's Museum's evolving relationships with schools, parents, and children in Robert Taylor Homes have yielded valuable lessons and helped staff create a model for other cultural institutions interested in partnerships with families and schools in low-income communities. A highly important quality is flexibility. "The museum's way is not necessarily the only way or the right way," says Darchelle Garner of the museum staff. All perspectives need to be valued and incorporated throughout the process.

Perhaps the key to success is commitment. The Chicago Children's Museum management and board have pledged their support to the community, its schools, and its families. It will take a number of years to gain trust and build involvement before the impact of the program is widespread.

For more information: Darchelle Garner, Vice President, Community Services and Strategic Initiatives, Chicago Children's Museum, 700 E. Grand Ave., Suite 127, Chicago, IL 60611, 312/464–7677

Ideas and notes:

Partners' Voices

"Commitment is the driving force that says to others, 'I am here to do what I can to make this program a success.' Through my commitment to the Books Alive! program, I have developed a stronger commitment to my children and their educational needs, my family, school, and community."

Jerline <mark>Body, Parent Network</mark> Chairper<mark>son, Hartigan School</mark>

"Collaborations take years to produce successful outcomes. The museum's management and board have made the commitment to direct resources to this initiative. Success could not be achieved otherwise."

Darchelle M. Garner, Vice President, Community Services and Strategic Initiatives, Chicago Children's Museum

Open a dialogue with teachers in which museum staff do more listening than talking.

Museums need to recognize the complexity of school schedules and the importance of planning, and teachers need to understand the cooperative nature of exhibition development and the museum's role in educating children.



Hartford, Connecticut

Connecting with Connecticut History

A planned permanent exhibition on Connecticut history at the historic Old State House in downtown Hartford presented an opportunity to involve teachers in shaping the ways the Connecticut Historical Society could teach history to schoolchildren. With a Museum Leadership Initiatives grant, the museum sought the advice and participation of nine teachers in creating a collection of classroom activities that complement the exhibition themes but can be used independently.

Although an activities workbook is the tangible result, the actual benefits are far broader. During the year, the Connecticut Historical Society took significant steps toward creating an environment in which to work productively with teachers—a responsive, participatory atmosphere that stimulates and supports true partnership.

The staff learned that to meet people's needs effectively you must open a dialogue with them. The project began with three meetings at which staff members described the new exhibition and teachers gave advice about exhibition plans and tour programs. These meetings were essentially reactive in nature. In the next phase of the project, participants worked in small groups to define, research, and produce classroom materials based on exhibition themes. The heart of the project became dialogue—talking and listening in small group meetings and informal conversations. Instead of inviting teachers to react to ideas that originated among museum staff, the staff asked teachers to show them what they meant and wanted.

Another key to the project's success was the acknowledgment that teachers want freedom of choice. They are looking for a variety of



teaching options rather than a tightly organized plan. The workbook contains a loosely connected group of activities from which teachers can select according to their own interests and their students' needs.

If the project participants have any regrets about this first phase it is a familiar one: too much to do in too little time. One teacher said, "We clearly had more planned to do than we could achieve. But if we'd thought we *couldn't* do it, it wouldn't have happened at all."

For more information: Kate Sawyer O'Mara, Education Associate, Connecticut Historical Society, One Elizabeth St., Hartford, CT 06105, 860/236–5621, ext. 233 Christine Ermenc, Director of Education, Connecticut Historical Society, One Elizabeth St., Hartford, CT 06105, 860/236–5621, ext. 224

Ideas and notes:

Pa<mark>rtne</mark>rs' Voices

"Going into our project, our focus was how to best teach children. Now I know that we've got to begin a dialogue with the right audience: the teachers. If they believe in our exhibit and our programs, they will bring the students; if they don't, they won't."

Kate Sawyer O'Mara, Education Associate, Connecticut Historical Society

"Find teachers who are interested in the partnership and have a stake in seeing it through. In our case, the museum staff was equally dedicated. The fact that we all listened and shared ideas and concerns made this project work."

Teacher's unsigned evaluation

Create a productive working atmosphere that promotes mutual respect and open-mindedness.

✓ Develop an action plan that lists concrete steps toward the partnership's goals.

Kentucky Historical Society / Museum Educators, Teachers, Kentucky Department of Education, and Others

Frankfort, Kentucky

Museums Seek a Role in Educational Reform

Enacted in 1990, the Kentucky Education Reform Act has reshaped school finance, governance, and curriculum to guarantee equal educational opportunities and high levels of achievement for all Kentucky students. Reform guidelines calling for hands-on learning and an emphasis on community resources have created an opportunity for museums to become an integral part of the state's changing schools. For museums with strong relationships with schools, adapting programs to meet new standards has been an exciting challenge. For those with fewer connections and newer education programs, it has been overwhelming.

Realizing the potential for Kentucky's museums in this new educational age, the Kentucky Historical Society drew on a new museum education network to put together a team of individuals willing to participate in the Museum Leadership Initiatives project. This "think tank" consisted of museum educators, teachers, Kentucky Department of Education staff, and other arts and education partners. Based on the results of a needs assessment of educators in elementary, middle, and high schools, the team identified the common ground between education reform and museums and produced an action plan for incorporating museums into the state's comprehensive education reform program.

This project, with its multiple partners represented by twentysix participants, demonstrates that creating an environment where minds can meet is an essential first step in partnership. Fundamental principles such as communication, flexibility, mutual respect, and open-mindedness take on especially important meaning when a group is laying the foundation for ongoing collaboration.

The action plan leads to the next steps in promoting closer relationships between museums and schools: a directory of school services offered by museums; a televised seminar for teachers about ways to use museum resources in education reform; and a televised seminar for museum staff introducing the basic elements of state education reform and illustrating how museums can implement them.

Building on the spirit of partnership established during the planning year, these activities will be carried out by a team of museum educators; teachers; and curriculum, technology, and professional development specialists from the Kentucky Department of Education, Kentucky Educational Television, and the State Department of Information Systems.

For more information: Vicky Middleswarth, Museum Education Branch Manager, Kentucky Historical Society, P.O. Box 1792, Frankfort, KY 40602–1792, 502/564–3016

Ideas and notes:

Partners' Voices

"Work with principals and with district and state education officials. Their support and review of programs will help keep you in line with state and local education goals. As you seek advice and information from these officials, you will also breed support for your museum and the teachers who work with you."

Melissa S<mark>palding, Manager of</mark> Program Dev<mark>elopment, Louisville</mark> Science Cente<mark>r</mark>

"Sit at the schools' planning table, wrestle with curriculum design, and pitch in. Get to be a common face at school functions, and let teachers know that you're there for the long haul."

Dennis Horn, Interim Director, Kentucky Arts Council

Invest time in planning to develop a set of measurable goals that can be achieved realistically during the period of the partnership.

✓ Build and expand on existing relationships with schools.

Maryland Historical Society / Baltimore City Public Schools, Baltimore County Public Schools

Baltimore, Maryland

Mining an Educational Resource

African-American installation artist Fred Wilson's *Mining the Museum*, a work of art masquerading as a history exhibition, opened the Maryland Historical Society to new audiences and provided a much-needed teaching resource when it was on view in 1992. *Mining the Museum* presented objects from the historical society's collection in unusual, often jarring juxtapositions to provoke questions about race, cultural identity, and truth. It offered great possibilities as a catalyst for teachers and students to explore their thoughts and feelings about these issues.

After the original installation closed, the historical society invited Wilson to create a smaller permanent exhibition. To capture the educational potential of *Mining the Museum*, the partnership with Baltimorearea public schools brought together the artist, museum educators, and an advisory committee of school personnel, parents, consultants, and evaluators. The aim was to plan, develop, and conduct a program of teacher training, classroom activities, museum-based programs, and creative projects based on the exhibition.

The partnership was grounded in a solid relationship between the Maryland Historical Society and area schools and educators. The society offers school tours, outreach programs developed in collaboration with educators, teachers' workshops, and a summer teachers' institute. In recent years the staff have made a special effort to respond to the growing need for multicultural approaches to teaching. They believe that this history of partnership was an important building block in the success of the *Mining the Museum* project. Aside from the ways the partnership program affected students, teachers, and parents, it initiated and

renewed connections between the historical society and the teachers and administrators. It also expanded the museum audience in quantitative and qualitative terms, reaching them at an intense personal level that many programs cannot.

For more information: Michelle L. Carr, Education Outreach Specialist, Maryland Historical Society, 201 W. Monument St., Baltimore, MD 21201, 410/685-3750

Ideas and notes:

Partners' Voices

"Museum educators need to understand the experience of many of our youngsters. Traditionally, children raised in poverty are not exposed to programs at cultural institutions. Their parents feel a sense of alienation from these institutions. Financially, they cannot afford entrance fees, and they are often too intimidated to visit unfamiliar places that are perceived as elitist."

Joan Cohen, Specialist, Division of Instruction, Baltimore City Public Schools

Address specific needs regarding curriculum resources and local and state performance standards.

Form a teacher advisory team to spread the word among teachers about the program, explain where it fits in the curriculum, and implement program components in the classroom.

Mint Museum of Art / Charlotte-Mecklenburg Schools

Charlotte, North Carolina

Digging Into Art and History

Using art as a window to history is the underlying principle of the Mint Museum of Art's sixteen-year collaboration with educators in the Charlotte-Mecklenburg Schools. It was only natural that the museum staff would take the opportunity offered by the Museum Leadership Initiatives planning grant to enrich and expand these already-strong links.

An imaginative interdisciplinary program, D.I.G.S.: Deciphering and Investigating Great Societies, combines community partnership, education, and inventive uses of technology. With the museum's collection of pre-Columbian and Spanish Colonial art as the focus, a team of educators, museum staff, and local Latin American leaders designed, tested, and refined a comprehensive fifth-grade curriculum on Latin American history, culture, art, and language. Six elementary schools tested and evaluated the program in the spring of 1995. In the 1995–96 school year, D.I.G.S. reached all fifth-graders in the school system, the nation's twenty-seventh largest.

The project includes an in-school program by a museum docent and a Latin American volunteer; a five-part teacher training program; a teacher slide packet; sophisticated computer software (*Dig It!*) for previsit classroom use; classroom lessons for art, social studies, and foreign language; a two-hour interactive museum visit; a printed family guide to the pre-Columbian collection; and a family pass to return to the Mint.

Results from the six pilot schools showed an increase in enthusiasm on the part of D.I.G.S. students and a deeper understanding of the material. Teachers valued the project as a creative and effective tool for communicating about what had been very difficult subject matter. As a result of D.I.G.S., the school system endorsed the museum as a manda-

tory fifth-grade field trip for 1995–96 and has committed to installing the *Dig It!* software in seventy-seven elementary schools.

Both museum staff and educators credit the D.I.G.S. project with giving them valuable insights about developing educational programs that revitalize state and national curriculum goals and standards. D.I.G.S., they suggest, is a model field trip for the twenty-first century. It links community resource people, educators, students and their families, and museum staff to the content, technology, and assessment tools that make for a positive learning experience.

For more information: Jill Shuford, School Programs Coordinator, Mint Museum of Art, 2730 Randolph Rd., Charlotte, NC 28207, 704/337-2033

Ideas and notes:

Partners' Voices

"Schools are much more receptive to plunging into a museum program if there is a solution that can best be addressed within a partnership."

Jill Shuford, School Programs Coordinator, Mint Museum of Art

"It is important for the museum to know the organization and protocol of the school system, especially one as large as ours. Then you can cut through the red tape and work faster and more smoothly at every level."

Faye Bowman, Teacher, Sharon Elementary School

✓ Before you begin, secure top-level support from the management of each partner institution. As the project progresses, access to these decision makers is also essential.

Capitalize on the positive power of teamwork. With trust, respect, and a shared vision, multilevel team leadership can have a dynamic impact on a collaborative project.

Museum of Science and Industry / Elementary Professional Development School, Hillsborough County District Schools, University of South Florida Tampa, Florida

Collaboration from the Ground Up

A new school is being created in Tampa, Florida. The Elementary Professional Development School, set to open in 1998, is conceived as a model for exploring new methods of teaching teachers and students. The innovative curriculum will combine the varied resources of the partner institutions, and a teacher training program will provide hands-on preservice education for educators in pre-kindergarten through fifth grade. With the Museum Leadership Initiatives grant, the three collaborating agencies began a planning process to define their respective roles in the new school.

A three-tiered management structure evolved: a management team to provide policy and legal direction, a leadership team to guide the development of the plan, and a site operations team to staff the school itself. Each team includes representatives of the three partners.

The Museum of Science and Industry, located across from the school site, will offer special expertise in interactive science, math, and technology using its exhibits, collections, and programs. The museum will strengthen the new school's neighborhood connection, providing opportunities for family involvement and community programming.

A valuable aspect of the year's planning and development activities was site visits to the Museum Magnet School in St. Paul, Minnesota, and the Science Magnet School in Buffalo, New York. The Florida team asked about planning, operations, teacher and student selection, evaluation, and facilities, coming away with information that has influenced their own planning. A vision and planning workshop held during the year helped team members understand their personal roles and stim-

Partnership Profiles

ulated first steps toward developing a shared vision for the new school. As the school takes shape, the spirit of collaboration that emerged during the planning year will serve each of the partners well. Ultimately, the considerable resources of a science museum, a school district, and a university will coalesce to the benefit of teachers, students, and the community.

For more information: Antoinette Carregal, School and Demonstration Program Manager, Museum of Science and Industry, 4801 E. Fowler Ave., Tampa, FL 33617–2099, 813/987–6333

Ideas and notes:

Partners' Voices

"Share everything with the leadership team. Together there is no hurdle that you won't get over somehow."

Lamar Hammer, Hillsborough County School District



Try This!

Interactive communication technology offers tremendous potential for extending the reach of a museum's educational services.

Teachers respond best to workshops that are structured around cooperative learning. They are enthusiastic about working together so they can share ideas and answer each other's questions.

New England Aquarium / McKay Elementary School, Harvard Kent Elementary School, J. P. Manning School, Donovan School, Rupert A. Nock School, Massachusetts Corporation for Educational Television

Boston, Massachusetts

Science by Satellite

As the foundation for this initiative, all of the partners brought valuable ingredients to the mix. The New England Aquarium had Project Aqua SMARTS, an aquarium-based elementary school science curriculum; the Massachusetts Corporation for Educational Television (MCET) had expertise in interactive satellite television transmission; and educators at the five schools had classroom experience and a knowledge of their students' needs. By merging their resources, these organizations were able to create a unique, exciting, and readily accessible program that includes a year-long curriculum using water as the basis for science education programming for grades two through five.

A trip to the New England Aquarium is a highlight of science learning, but it may be a fiscal or a geographical impossibility for some schools. Increasingly, on-site science and environmental education is a focus of the aquarium's educational services. Using the familiar medium of television combined with more traditional teaching approaches, the aquarium has tremendous potential for reaching large numbers of students in school-based programs. Project AquaSMARTS presented a good opportunity to experiment with innovative technology and present science in a fun, engaging, and memorable way.

In the first phase of the collaboration, a planning team of teachers and staff completed the evaluation and preparation of a five-part AquaSMARTS curriculum segment on fresh water, which was broadcast to schools. The team then incorporated what they had learned in the planning and development of a second segment on global oceans.

Partnership Profiles

MCET, a state-funded agency that works with nonprofit organizations, other agencies, and individuals to enhance existing educational offerings with telecommunications, was an invaluable partner.

As a result of the Museum Leadership Initiatives project, the aquarium now has a model for collaboration with teachers and MCET to develop future school-based learning opportunities.

For more information: Lisa Frederickson, Supervisor of Outreach Education, New England Aquarium, Central Wharf, Boston, MA 02110, 617/973–6596

Ideas and notes:

Partners' Voices

"Schools and aquariums operate differently and exist in different communities, so assumptions should not be made about what schools can or cannot do. Realistic goals and objectives will utilize each partner's strengths to the fullest."

Lisa Frederickson, Supervisor of Outreach Education, New England Aquarium



Try This!

Observe teachers in action in their classrooms. Work with them to consider how best to integrate museum resources into their curriculums. Respect their professionalism, their expertise, and the issues and concerns they confront.

An atmosphere of experimentation yields innovative results. Given the time and the freedom to experiment, teachers bring multiple voices to a project that enrich the final outcome.

Oakland Museum / Oakland Unified School District

Oakland, California

Window on History

Curriculum development was the tangible focus of the Oakland Museum's Museum Leadership Initiatives partnership. But beyond the prototype curriculum that resulted from the year-long planning project, the museum also expanded its relationship with teachers and administrators in the Oakland Unified School District and extended its connections to community organizations. By understanding the demands of teaching and learning in an urban classroom, the museum staff became more aware of what is required to deeply integrate the museum's resources into the school curriculum.

The new fourth-grade unit about immigration to California in the twentieth century, called *California Newcomers*, incorporates museum resources with family histories to help students appreciate the state's multicultural heritage and to foster crosscultural respect. In the belief that personal voices underscore the continuity between past and present, oral histories were a cornerstone of the project. To highlight issues of assimilation and acculturation, ten people from three generations of a Mexican-American family and a Japanese-American family were interviewed.

So that the partnership would fit into the larger picture of educational reform, the museum designed it to address two particular issues: using primary source materials in the teaching of history and trying new approaches to assessment. The museum's collections, which are rich in California history, provide first-person accounts, artifacts, photographs, documents, and works of art that are important elements of the curriculum. In evaluation, the museum environment offers possibilities for assessing student learning through the performance of tasks and assignments rather than traditional tests.



Partnership Profiles

A broad-based advisory group strengthened the project. Members included scholars from ethnic studies programs as well as community leaders, teachers, and museum and school staff. Although there were differences of opinion, the group was uniformly committed to the success of the project. They were willing to suggest other community resources and opened the door to future community collaboration.

After field testing, evaluation, and revision, the curriculum and teaching materials will be distributed to sixty Oakland elementary schools. The ultimate goal is to implement the curriculum statewide to promote a multicultural, museum-based approach to teaching and learning California history.

For more information: Janet Hatano, Education Coordinator, Oakland Museum, 1000 Oak St., Oakland, CA 94607, 510/657–5432

Ideas and notes:

Partners' Voices

"What does successful teaching look like in a multilingual, mixed-ability classroom? What are the challenges teachers face on a daily basis? What is life in school like? These are all questions we need to constantly keep in mind as we develop museum programs."

Janet Hatano, Education Coordinator, Oakland Museum

"We are an institution that either is, or appears to be, in perpetual chaos. To be kinder, any large urban school district is going to be moving in several directions at once. Our teachers are without many resources and feel generally beleaguered. To work with us means to be flexible, to be open to constructive criticism, and to appreciate the tremendous contributions of the students and the teachers."

Shelly Weintraub, Social Studies Coordinator, Oakland Unified School District

Try This!

Constant, ongoing communication, mutual respect, and a "spirit of neighborly collaboration" contribute to a successful partnership.

Involve as many teachers as possible from the partner school, not just one or two representatives.

Society for the Preservation of New England Antiquities / Triton Regional School

Boston and Newbury, Massachusetts

Shared Needs and Mutual Benefits

The resources of museum, school, and community have helped eighth-grade students in the Atlantic coastal town of Newbury, Massachusetts, learn that they are part of the continuum of history. In a collaboration between the Society for the Preservation of New England Antiquities (SPNEA) and Triton Regional School, staff and teachers integrated SPNEA's Spencer-Peirce-Little Farm into an interdisciplinary curriculum unit on New England and the Sea (NETS). Conscious that museum-school programs yield disappointing results when they are not genuine joint efforts, the project team deliberately shaped the curriculum elements according to the school's needs and the historic site's strengths.

Through the NETS unit, students learn about the need to preserve the ocean as a vast natural resource and to understand the unique relationships New Englanders have with the sea. On their four-and-a-half-hour visit to the Spencer-Peirce-Little Farm, students explore the lives of people who lived there and in Newbury in the late 1700s and early 1800s and learn how their livelihoods depended on the sea.

Development of curriculum materials and activities took full advantage of teacher and staff expertise. In a series of intensive meetings they worked out preliminary plans and activities as a team, but ultimately the teachers were responsible for the final in-class lesson plans and SPNEA staff for the final site visit activities.

Students come away with the understanding that history is a process of inquiry, not a collection of facts. For adolescents who are searching for self-definition, the program provides context and history. For teachers, the project speaks directly to their professional development needs.

Partnership Profiles

Every eighth-grade teacher in the district has been able to develop skills and experience in using historical and primary sources, objects, and sites as supportive resources for their classroom work.

For more information: Jocelyn Young, Manager of School Programs, Society for the Preservation of New England Antiquities, 141 Cambridge St., Boston, MA 02114, 617/227-3956

Ideas and notes:

Partners' Voices

"Teachers need time to work on creating the program during their regular school hours. They should not have to work on it after school, at home, or on weekends. When writing grants for planning museum-school collaborations, include a budget line to pay for substitute teachers to cover the teachers' regular classes on your meeting or work days."

Jocelyn Young, Manager of School Programs, Society for the Preservation of New England Antiquities

"Communicating with each individual who plays a role in the evolution of the curriculum at each step of the way is the crucial strategy for success. Providing time for practitioners to create new learning experiences is also vital."

Cheryl Stuart, Director of Curriculum and Staff Development, Triton Regional School

Try *This!*

A strong partnership depends on both partners' realization of the vision for the project and the value for students. Outline each partner's expectations ahead of time, and establish standards for collaboration.

✓ Plan for regular assessment of progress toward the project goals.

Utah Museum of Natural History / Glendale Middle School

Salt Lake City, Utah

Enrichment through Peer Teaching

Students at Salt Lake City's Glendale Middle School, which has a diverse population, high mobility, and high poverty rate, are often unable to participate in traditional museum enrichment opportunities. But through a partnership between their school and the Utah Museum of Natural History, they became an integral part of the museum, benefiting intellectually, emotionally, and socially from their involvement.

In a program called Youth Teaching Youth, eighteen seventh- and eighth-grade students developed their knowledge of science and natural history topics and then were trained to teach what they learned to sixty children ranging in age from six to twelve. With their young students, they used the museum's outreach teaching kits to explore geology, anthropology, and biology through hands-on learning in school classrooms and after-school programs.

The middle school students had thirty hours of training in use of the outreach kit and nearly two hundred hours of enrichment, including team-building workshops, retreats, and field trips. All the enrichment activities were designed to increase their understanding of natural history, develop positive peer interaction, build leadership skills, and enhance self-esteem. They also learned how to serve as role models and mentors for the elementary-age children. The museum required a commitment to learn, teach, and work with the group for an entire school year.

Youth Teaching Youth gained the backing and respect of teachers, school administrators, and parents. Several local organizations made donations in support of the program. Most important, Youth Teaching Youth provided valuable educational opportunities for young people in the community. When asked to evaluate the project, teachers and parents

Partnership Profiles

reported that the students showed greater interest in science as well as increased self-esteem and self-confidence. "My son loved being involved, and he took his love and enthusiasm to the younger children," wrote one parent. "This project has restored my faith in the education system."

For more information: Beth Kaplan Steele, Curator of Education, Utah Museum of Natural History, President's Circle, University of Utah, Salt Lake City, UT 84112, 801/585–6310

Ideas and notes:

Partners' Voices

"A partnership should be exactly what the term implies. Each side should articulate what roles they will have in the collaborative relationship in an effort to accomplish the students' goals. The partnership will only be as good as the partners' efforts to realize the vision of the project and the value for students."

Larry Odom, Principal, Glendale Middle School



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Partnership Themes

ala a ala						
preschools						
elementary schools (K-5)	1	1	1		1	/
middle schools (6-8)		1				
high schools (9-12)				1	1	
museum schools						
urban schools	1		/		1	/
rural schools		/				
curriculum development	1	/			1	
professional development		/	/	1		
resources for teachers			/	1		
needs assessments				1	1	/
museum-school coordinators			/			
parent involvement	1	/			1	/
community involvement	1	/			1	/
museum education research		/			1	
exhibitions	/					
interactive television						
software development						

/ / / /

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Conditions for Partnership

Partnerships with schools strengthen a museum's community involvement, enrich its educational capacity, build an enlightened audience, and signal a commitment to educational reform and improvement. Museums have a healthy history of collaboration with schools. The challenge is to transform traditional concepts of museum-school relationships so that museums can engage fully in supporting education in their communities.

What does it take to create a partnership that benefits museum and school, teacher and student, parents and community? The experiences of the fifteen partnerships that received IMS Museum Leadership Initiatives grants in 1994 confirm that a museum needs to meet twelve conditions for success.

Meeting these conditions fully will require a willingness to change. A partnership can disintegrate when one or both of the institutions is so locked into familiar ways of doing business—or so paralyzed by the restrictions of a bureaucracy—that dialogue, vision, and genuine collaboration are difficult or impossible.

The goal should be to integrate all of these conditions—not just some of them—into the attitudes and actions that define the partner-ship. Each condition then becomes part of an overall institutional strategy for educational collaboration.

Conditions for Success

- 1. Obtain early commitment from appropriate school and museum administrators.
- 2. Establish early, direct involvement between museum staff and school staff.
- 3. Understand the school's needs in relation to curriculum and state and local education reform standards.
- 4. Create a shared vision for the partnership, and set clear expectations for what both partners hope to achieve.
- 5. Recognize and accommodate the different organizational cultures and structures of museums and schools.
- 6. Set realistic, concrete goals through a careful planning process. Integrate evaluation and ongoing planning into the partnership.
- 7. Allocate enough human and financial resources.
- 8. Define roles and responsibilities clearly.
- 9. Promote dialogue and open communication.
- 10. Provide real benefits that teachers can use.
- 11. Encourage flexibility, creativity, and experimentation.
- 12. Seek parent and community involvement.

Commitment from administrators

1. Obtain early commitment from appropriate school and museum administrators. Teachers and museum educators alike emphasize the importance of leadership and endorsement from top management. When school principals, curriculum specialists, the museum director, and department administrators believe in the partnership, there will be fewer roadblocks.

Begin early to build commitment. "Before entering a program with a school," advises Lisa Frederickson of the New England Aquarium, "it is imperative that the administration of the school fully supports the proposed program. Planning should include both teachers and administrators with clear roles and responsibilities designated from the beginning."

Establish a collegial atmosphere for communication. A formal mechanism is necessary, but the interaction can be relaxed and informal. Early in the year, the Chester County Historical Society invited secondary school administrators to the museum for a reception, a behind-the-scenes tour, and a project overview. The administrators were kept up to date throughout the project.

Make the connection between your program and the issues administrators deal with daily. Oakland Unified School District staff point out that administrators are willing to work with museums when they understand how collections and programs can relate to the larger picture and contribute to reform efforts.

Museum administrators must stand behind the partnership, too. Jane Nylander, president of the Society for the Preservation of New England Antiquities, explains why: "It is very important for museum management to understand and be deeply committed to programs that have lasting effects in communities. In doing so, we are guiding teachers in the use of local resources, helping families gain a historical perspective on their environment, and bringing greater meaning to the historical resources that we preserve."

Teacher involvement

2. Establish early, direct involvement between museum staff and school staff.

Even before establishing general project expectations and specific goals, cultivate relationships with the teachers and administrators with whom you want to work. When you approach school educators, do more listening than talking, more asking than explaining. Your objective is to build an atmosphere of respect, trust, and dialogue that will provide a solid foundation for partnership.

Museums must overcome some stereotypes when communicating with teachers. Says Beverly Sheppard of the Chester County Historical Society, "Most of the teachers we encounter think of museums strictly in terms of field trips or classroom visits. Few have considered the potential for sustained relationships with significant learning impact." Museums have to make their case with educators by inviting them to join in the early planning, allowing a free flow of ideas, and listening carefully.

No matter how enthusiastic you are about the partnership, let teachers know that it is a choice, not a requirement. Karen Roos, principal of the Byron Primary School in Minnesota, notes that "allowing teachers the right to choose whether or not to be involved has been critical to the success of the program." Kate Sawyer O'Mara of the Connecticut Historical Society found that "the recurring theme [among teachers] was choice. The next time I develop a program, I will include many resources which allow teachers the freedom to choose."

Jocelyn Young of the Society for the Preservation of New England Antiquities recommends involving as many teachers as possible from a school in creating a program—all teachers of an elementary grade level, for example, not just one or two representatives. In many cases, administrators, curriculum specialists, resource teachers, and others should also participate.

Understanding of schools' needs

3. Understand the school's needs in relation to curriculum and state and local education reform standards.

Effective, long-term partnerships succeed because the partners have identified a problem to be solved or a need to be fulfilled and then worked to match museum resources to what is happening in the classroom. Melissa Spalding of the Louisville Science Center emphasizes the museum's obligation to "know and understand education reform and its impact on teachers. Think about how you can design your partnership to support reform and to support teachers." Joan Cohen of the Baltimore City Public Schools commends the Maryland Historical Society for its onsite efforts to appreciate students' needs, correlate the project to the curriculum, and solicit teachers' support. "Even the best-intended program will fail," says Janet Hatano of the Oakland Museum, "if it does not fully take into account the issues and concerns of the people who will be actually implementing it—teachers and students."

Conducting a needs assessment is a good way to identify curriculum requirements and obtain background information about the schools. The assessment can focus on the schools alone or encompass the community. The results can be critical in determining the direction of a project: The Chicago Academy of Sciences' community needs assessment changed the project planners' perceptions of community priorities and is shaping the development of customized curriculum, service-learning projects, and teacher in-service. The Chester County Historical Society shifted direction after museum staff gained new insight into teachers' needs and interests.

Informal observation can also yield meaningful insights. Janet Hatano recommends "shadowing a teacher for a day and talking to students, teachers, and principals. This is the context we need to keep in mind as we develop programs."

Shared vision

4. Create a shared vision for the partnership, and set clear expectations for what both partners hope to achieve.

As you cultivate the relationship with school educators, talk about everyone's personal hopes. Translate these ideas into a vision of what all the participants would like the partnership to be. Think about the needs of the museum, the school, students, teachers, museum educators, parents, and the community. Creating a vision involves thinking about *what* you want to accomplish, not *how* you want to accomplish it.

The Carnegie Museum of Art and the Carnegie Museum of Natural History envisioned a partnership that would integrate the museums' resources into the daily life of McCleary Elementary School and the surrounding community—a significant step forward from the stereotypical view of museums as "add-ons" to the curriculum. McCleary's principal Mary Ellen McBride believes that this expanded, innovative vision was what made the collaboration a success.

Chicago parent Jerline Body, an active participant in the partnership with the Chicago Children's Museum, speaks to the value of conceiving a vision that reflects everyone: "The overall vision of the program must be communicated to all partners, because then it becomes a shared vision." Steve Permuth of the University of South Florida, Tampa, agrees: "Different partners can take the lead in different areas, but for the partnership to work it must evolve as a common vision."

Difference in cultures

5. Recognize and accommodate the different organizational cultures and structures of museums and schools.

The organizational cultures of museums and schools—their underlying internal values and assumptions—affect many aspects of a partnership, including planning style, short-term and long-term schedules, commu-

nication, and the perceived accessibility of museums. "Museum time is different from school time," comments Janet Hatano of the Oakland Museum. Museums often plan far in advance (three to five years for an exhibition, for example), while schools are accustomed to implementing programs in a shorter time frame. Museums can sometimes be more flexible in their schedules, while schools and teachers are limited by strict class schedules and teacher work times. Museum educators may be able to make a partnership a high priority, but teachers must focus on the education of their students; they may have to move more slowly and fit the project into crowded agendas.

Teachers want to learn about museums' organizational culture. Work to create greater access to the range of resources the museum can offer, and explain how museums function as educational institutions and how they can complement schools. In turn, seek direct involvement with the school culture in order to maximize the effectiveness of museum programs.

Museum educators need basic facts about the demographics of community and school; teachers' background; administrative organization; student academic performance; school mission and vision; and the socioeconomic variables of the students. They need qualitative information as well: an understanding of the teacher's or the school's teaching philosophy and style and a sensitivity to the complex concerns and issues that teachers face every day in their classrooms.

Planning and evaluation

6. Set realistic, concrete goals through a careful planning process. Integrate evaluation and ongoing planning into the partnership.

Planning provides a framework for a partnership and an orientation point for assessing progress periodically. Use the project plan as the basis for continuing evaluation, and do not hesitate to adjust expectations based on evaluation results. The goals and strengths of each partner should inform the planning process and lead to realistic goals that capitalize on your respective strengths. In the Mint Museum of Art's project, the Charlotte-Mecklenburg Schools sought an enhanced social studies curriculum, and the museum sought to integrate emerging technologies into its exhibitions and programs. Together they used a year-long planning phase to set goals for a mutually beneficial project.

Allow adequate time for planning. Remember that school schedules may require a different time frame for planning than is usually needed in the museum setting. Curriculum specialist Joyce Bucci of the Baltimore County Public Schools attributes the success of the partnership with the Maryland Historical Society to "an expert planning committee, a successful communication network, and the appropriate allotment of planning time."

Build in assessment and accountability from the start. Using formal and informal evaluation, you can test a prototype partnership, check progress toward goals, keep logistics on track, and assess outcomes. In the Maryland Historical Society partnership, an evaluation consultant participated in every phase. For the New England Aquarium and other Museum Leadership Initiatives projects involving curriculum development, evaluation was essential to test the effectiveness of materials and revise them for optimum classroom use. The Chicago Academy of Sciences designed a new evaluation strategy expressly for the school-community-museum partnership.

Jocelyn Young of the Society for the Preservation of New England Antiquities points to another valuable benefit of planning time: It provides the opportunity to build trust. "Trust grows through good communication and demonstrated dependability," she says, "so do not underestimate the time needed to plan a collaborative program."

Sufficient resources

7. Allocate enough human and financial resources.

The bottom line is critical in museums and in schools, but an investment in human and financial capital from both partners is essential to a lasting program. When planning the project, determine what resources are available to enable teachers to participate fully. These resources can be used in a variety of ways, depending on the particular circumstances. The Maryland Historical Society compensated school personnel involved in planning and supervising the program and provided stipends for teachers attending workshops. Many museums built in funding for program coordinators, instructors, and substitute teachers.

Appointing a liaison between museum and school will smooth project administration and communication. The Carnegie Museum of Art and Carnegie Museum of Natural History named two museum-school coordinators who worked closely with each other and as resource specialists in McCleary Elementary School.

Clear responsibilities

8. Define roles and responsibilities clearly.

Build on the respective strengths of each partner and compensate for the weaknesses or challenges. Some responsibilities are clearly more appropriate for schools and teachers, and some are more appropriate for museums. From the outset of the Mint Museum's program with the Charlotte-Mecklenburg Schools, the partners agreed on a shared work plan that strengthens and helps sustain the partnership. School administrators coordinate scheduling and arrange transportation; school personnel have conducted student evaluation; and a teacher advisory council has guided teacher participation. In other partnerships, similar team approaches work well. Each partner brings different resources to the table, sometimes educating others to new possibilities. At the Museum of Sci-

ence and Industry, Tampa, a written contract outlines the roles, responsibilities (including fiscal), and expectations of each partner.

Dialogue

9. Promote dialogue and open communication.

Dialogue is more than conversation or information sharing. In dialogue, the goal is to inquire, learn, offer thoughts, discover shared vision and common meaning, and explore how to think and learn together. Through dialogue we can pave the way to genuine problem solving and teamwork.

Sometimes formal mechanisms such as advisory teams or open houses for teachers and administrators help promote dialogue. More often, dialogue occurs simply because the project leaders promote a working atmosphere that values individual contributions to the whole. The Chester County Historical Society deliberately created a "level playing field" in the early planning sessions. The resulting partnership reflects the core needs of all the participants. Later, the project director held individual meetings that encouraged another aspect of open conversation, allowing less vocal participants to share their ideas.

Capitalize on ongoing partnerships to build new ones. When trust has been established, open channels of communication result. The Mint Museum of Art, for example, found that its history of collaboration enabled staff to include additional partners, implement new programs, and reach wider audiences. The Minneapolis Institute of Arts also built on longstanding relationships, as did the Maryland Historical Society and a number of the other partnerships.

When starting from the ground up, devote time to establishing contacts, developing trust, and defining communication procedures. Tom Beccone of Downingtown, Pennsylvania, Senior High School notes that "schools exist within a bureaucratic framework that, at times, must seem

Byzantine to the outsider, so one must take great care to establish clear lines of communication. As no two school districts are organized alike, it is necessary to establish contacts on a district-by-district basis." Hillsborough County, Florida, School District representatives stress the importance of valuing the potential of each partner's contributions. Specific communication procedures are also important. A framework for distributing information among institutions helps everyone participate on equal footing.

Tangible benefits for teachers

10. Provide real benefits that teachers can use.

Teachers need time, professional development opportunities, and relevant curriculum and materials that they can use in the classroom. With these tools, they can create the highest-quality experiences for their students. Several museums allocated resources that enabled teachers to participate in planning and project development. Professional development opportunities included workshops, site visits, and internships.

Teachers involved with the Mint Museum of Art's project attended in-service workshops and took research trips to other museums that guided the preparation of classroom resources. A teacher-museum internship at the Chester County Historical Society will help the museum explore possibilities for future programs. An abundance of curriculum materials resulted from Museum Leadership Initiatives partnerships—from the New England Aquarium's comprehensive science curriculum, disseminated via interactive television, to the Oakland Museum's curriculum for fourth-graders that incorporates the museum's California history collection with community resources. Research findings, such as those from studies conducted by the Chicago Academy of Sciences and the Minneapolis Institute of Arts, are also critical to educators developing museum and classroom learning experiences.

Flexibility and experimentation

11. Encourage flexibility, creativity, and experimentation.

A museum-school partnership will be stronger and richer when educators from both institutions have the freedom to experiment, shift directions, and grow professionally. The Chester County Historical Society's partnership took a new, more constructive course because of teachers' ideas. At the Chicago Children's Museum, the staff understands that the museum's way is not necessarily the only way or the right way, so they are able to respond to needs and interests of parents and families. At the Connecticut Historical Society, teachers developed learning objectives for an exhibition before the design was in place, not in response to a preconceived framework. Several curriculum development partnerships—including the Society for the Preservation of New England Antiquities, the Oakland Museum, and the New England Aquarium—built in room for testing, critiquing, revision, and further testing.

Parent and community involvement

12. Seek parent and community involvement.

The future health and survival of museums depends on their ability to form new relationships with their communities. Unlike the outreach efforts of the past, effective community relationships today revolve around inviting the community inside—into a welcoming place that thrives because of their participation. Parent and community involvement in a museum-school partnership has short-term benefits in the form of validity for the program in the museum's larger community. Over time, such participation helps build an audience that wants and needs to use the museum as an educational institution. Parents and community members can be involved in program planning and curriculum development, as content specialists and as general resource people. The central purpose of the Chicago Children's Museum project is to forge long-term

partnerships with parents in a large public housing development. Sustained parent participation has strengthened parents' relationships with the museum, the school, and their children. The benefits of community involvement are also evident to staff at the Chicago Academy of Sciences, who understand that "working and thinking together in the community are the key components for creating a real partnership."

Transforming Museums

by Robert Sullivan

We in museums talk too little about

an important part of our educational enterprise: how we as change agents affect and shape not only the knowledge and the information that learners receive but some of the wisdom that they receive as well. How do we develop such aspects of the human being as piety, awe, reverence, and humility, as opposed to merely the skills necessary for a better economy?

Let's begin with two points of view. The first was expressed in *America's Museums: The Belmont Report*, published nearly thirty years ago by the American Association of Museums: "Museums have a great potential, not only as a stabilizing, regenerative force in modern society, but as a crusading force for quality and excellence." The second is that of Thomas Hart Benton, writing forty-three years ago: "The museum in America is almost invariably a memorial to a cash-grabbing career. It is a monument to that self-estimated superiority which is the almost invariable curse of large-scale success at money making. It is dedicated to the snob notion that the personal possession of things others do not have and cannot get establishes superiority, greatness, magnificence, and the right and ability to pass judgment on everything under the sun."

Cherished, despised, and adored as repositories of all that is valuable in human creativity and expression, history, and ingenuity, or even ignored as frivolous diversions of the elite, museums inspire perceptions

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that are as ambivalent as the meanings of the artifacts they contain. One conclusion, however, is inescapable. Museums, in and of themselves, are artifacts—social documents that reflect, present, and transmit the beliefs and value systems of the societies that create them. Their very existence in a society begins to reveal the attitude of that society's people about themselves and about the world around them. Museums, indeed, are ritual places where societies make what they value visible. Through the selection and preservation of artifacts, specimens, and documents, museums begin to define for their societies what things are consequential, what things are valuable, what things are suitable as evidence of the past. Through the presentation and interpretation of this evidence, museums define both what is memorable and how it is to be remembered. Each of these institutional activities is, of course, value-laden and culture bound.

The point of these sweeping and unguarded generalizations is simple. Museums, as social and educational institutions, are unavoidably linked to their cultural settings. They are a form of collective self-reflection that culminates in cultural institutions that maintain, sustain, and present a cultural identity and that embody a set of values and attitudes believed by their culture to be important. Museums are selective in that they collect, preserve, and interpret objects and ideas that symbolize and transmit some but not all of the values and beliefs of their society. In these choices of what social values and ideas to transmit and how to transmit them, museums reveal their moral nature, competence, maturity, and character.

While museums often claim to be value-neutral, nonmoral, and nonpolitical in intent, in practice and behavior they are value-laden, moralizing institutions. The core of the moral dimension of a museum is found in the decisions and choices that museums must make and then visibly enact. What do they choose to collect, and what do they choose not to collect? What themes and materials are exhibited, and under what

interpretive conditions? What audience is courted and made to feel comfortable and welcome in the museum? What audiences are ignored? Who is given comfortable psychological, intellectual, and physical access to the museum and its resources? What programmatic themes are addressed? How is the museum governed? Who is on the board? Who is on the staff? Each of these choices is necessarily value-laden. And these judgments, taken together, establish a pattern of policies, procedures, and public programs that define and communicate the norms, ethics, and moral identity of the museum, its compelling sense of self.

The contention that museums, because of their educational, social intent and their institutional choices, cannot be value-neutral or nonmoral in their actions and behaviors suggests that the question to be addressed is not *whether* museums should be involved in education, even moral education, but *how* they should be involved. How can museums develop a conscious educational purpose based on appropriate aims, concepts, and content? If the goal of museums as educators is to assist in developing the whole person—a person's knowledge, attitudes, beliefs, and feelings—then how should a museum develop the intellectual, esthetic, and moral judgment of its visitors and communities?

To start, museums should not attempt to duplicate the educational agenda of other institutions in their communities. They must take full advantage of their moral and social status and image, their collections, and their novel educational environment to develop their visitors' intellectual, emotional, esthetic, and moral character. Albert Camus writes that "art advances between two chasms, frivolity and propaganda." Perhaps museums must tread delicately between these same chasms. If the public perceives museums as totally uninvolved in social and educational dilemmas and contemporary moral concerns, they may label museums as irrelevant and frivolous. If museums become involved in advocacy and social issues, they may be accused of partisanship and propagandizing.

What, then, should a museum do as an educational institution? Two variables must be considered. First, what can museums do that no other institutions can do? And second, what does the museum's community need? The overarching function for museums as educators can be to provide alternative educational experiences for their communities, a counterbalancing educational bias, offering a new way of seeing, understanding, and learning. Or, as Neil Postman says, they must "free the young from the tyranny of the present." In a rational, logical, technocratic society, education has come to be defined in terms of quantifiable performance, behavioral objectives, inputs, outputs, expertise, and technical skills. Museums can offer a counterbalancing curriculum, stressing the development of critical judgment, awe, piety, sensitivity, empathy, affection. They can provide an alternative set of experiences that seek to transform and improve learners, not merely to improve their statistical performance. In a society that stresses discontinuity, disposability, change, and fragmentation, museums and their collections can be symbols of continuity, tradition, preservation, posterity, and human respect.

The primary resource for education in a museum must remain the object and the image. These resources teach through what viewers see, feel, and reflect upon—activities that all have a strong moral and emotional basis. The very nature of museums as voluntary, open educational environments encourages holistic, confluent educational experiences. A learner's intellect, feelings, values, and interests are instantaneously and simultaneously engaged. Isn't it amazing how light, color, and form arranged in an extraordinary way can affect every fiber of a human being?

"Relevance" is a word that hounded museums through the 1970s and 1980s. "Excellence" was a word that hounded us in the 1990s. I propose two different words that might serve us more fundamentally and purposefully in the future: mission and principle. Museums must be driven

Transforming Museums

by their critical purpose, by their passion and commitment to preservation and by the concept of posterity. This focus necessarily will draw museums into issues of environmental conservation, peace, technology, and the ethics of science. On these issues museums must speak with confidence, objectivity, and competence. Similarly, if museums are to maintain their educational integrity in society, they must have the strength of character to stand firm and be impervious to social pressure on matters of principle that are central to their mission.

Certainly, high on this list are principles of justice, fairness, and consistency in their treatment of minority ethnic themes, their portrayal of the roles and contributions of men and women, and their commitment to fairness and justice in collection, interpretation, personnel, and governance policies and access to museum resources.

Museums are educators. They can be forums for free and open discussion of authentic historic, esthetic, and scientific dilemmas. They can ask good questions, too good ever to be answered completely. In the end, the effectiveness of museums as educators will be measured by what they can make us realize about ourselves.

Transforming Schools

What do we mean when we talk

by Paula Evans

about a "transformative educational program"? We can find the answer to this question by looking at the guiding principles of the Coalition of Essential Schools, which since 1984 has been focused on redesigning the American high school for better student learning and achievement. The coalition is a partnership between Brown University and more than 900 schools across the country that extended from an inquiry into American secondary education conducted during the late 1970s and early 1980s sponsored by the National Association of Secondary School Principals

This research identified five imperatives for better schools:

- ✓ Give room to teachers and students to work and learn in their own, appropriate ways.
- ✓ Insist that students clearly exhibit mastery of their school work.
- ✓ Get the incentives right for students and teachers.

and the National Association of Independent Schools.

- ✓ Focus the students' work on the use of their minds.
- ✓ Keep the structure simple and flexible.

Simple though they may at first sound, these imperatives, if addressed seriously, have significant consequences for many schools, affecting both their organization and the attitudes of those who work within them. It is these consequences that the Coalition of Essential Schools addresses.

Paula Evans is director of professional development at the Annenberg Institute for School Reform, Brown University. From 1990 to 1995, she was associated with the Coalition of Essential Schools as director of the National Re:Learning Faculty, a partnership with participating states to build support for school change at the state and district levels, and as director of the Citibank Faculty Project, which provides advanced training for educators in facilitation and consultation skills. This essay is excerpted from her presentation at the conference "Museums and Schools: Partners for Education," sponsored by the Institute of Museum Services in November 1995. For more information about the Coalition of Essential Schools, write to P.O. Box 1969, Brown University, Providence, RI 02912, or call 401/863-3384.

The "common principles" that guide the coalition call broadly for schools to

- \checkmark set clear and simple goals about the intellectual skills and knowledge to be mastered by all students;
- ✓ lower teacher-student loads, personalize teaching and curriculum, and make student work the center of classroom activity;
- \checkmark award diplomas based on students' "exhibition" of their ability to use and transfer knowledge; and
- \checkmark create an atmosphere of trust and respect for the school, faculty, students, and parents.

The coalition offers no specific model or program for schools to adopt. What the participating schools hold in common is the guiding principles, which focus each school's effort to rethink its priorities and redesign its structures and practices. Each school develops its own programs suited to its particular students, faculty, and community. No two Essential Schools are alike. Collectively, they serve as examples of a variety of thoughtfully redesigned schools.

From our experience, schools engaged in creating transformative educational programs have four characteristics, which are closely related to the imperatives described earlier. First, they make it their primary focus to teach students to use their minds well—in all possible intelligences, as Howard Gardner has advocated. Second, they set high standards for every student. No matter what abilities or experiences students might bring with them to school, all strive for the same level of accomplishment. Third, a transformative educational program provides for close-up knowledge of each student so that educators can understand how to connect learning with the individual. To know every student well at school requires lower teacher-student ratios, because the overwhelming ratios that often exist today—especially in high schools—are detrimental to learning, no matter how extensive a school's resources. The fourth

criterion for a transformative educational program, from our point of view, is regular and diverse opportunities for students to exhibit their knowledge—in papers, in oral work, in group work, in community work. These opportunities are built into the curriculum. No one graduates from high school without doing a final "exhibition," which includes portfolios in a range of subject areas and might take two years to prepare.

What do we know after more than a decade of work by the Coalition of Essential Schools? We know that it is very difficult to create transformative programs that attend to all the principles and exhibit all the characteristics I have just described. Change takes time, and no matter how appealing the principles sound, there will be resistance from administrators, teachers, students, and parents. To imagine a way of being educated that is different from what we know is very hard.

What we are suggesting is more complicated than the traditional classroom experience available to most students. It requires more planning time among teachers, leading to more opportunities for collaboration across disciplines. Most teachers are comfortable working by themselves in their own classrooms. When asked to think about new approaches to curriculum, which may mean teaching with colleagues from other disciplines, we often balk. Turning a school on its head requires major adjustments, some of which will be painful.

We have found that to achieve success, we must be clear about goals and abandon the "Christmas tree" notion of educational reform. We cannot simply keep adding "ornaments" of reform just because we like them or just because they have money attached to them. The result will be a wide variety of programs and partnerships, some of which are diametrically opposed. Somehow, teachers, students, and administrators are supposed to make sense of the situation, but usually they cannot.

Our school colleagues in the Coalition of Essential Schools are dedicated to exploring how to move away from this "Christmas tree" approach. They are trying to figure out what they want students to know and be able to do by the time they graduate from high school. Whether they are working at the elementary, middle school, or high school level, the teachers are all committed to articulating these goals first, before they think about program, curriculum, or assessment. Then they move on to other questions: How will we assess what students know and are able to do? How will we teach them? What specific content areas will we address, and why?

Every step in the effort must be aligned carefully to lead toward these clear goals. Our experience with the Coalition of Essential Schools has shown that when there is alignment, there is a greater chance for success. By taking purposeful action, schools have the potential to provide structures and experiences that support authentic teaching and learning. That is the essence of a transformative educational program.

Selected Readings

This reading list has been compiled

as a useful tool for members of the museum and school communities who want to verify or enhance their understanding of museum-school partnerships. The sources address the theory and practice of collaboration; object-based and informal learning; interdisciplinary curriculums; and case studies of partnerships. International publications and materials published before 1984 are not included, with the exception of three highly recommended sources.

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Museum Leadership Initiatives Awards

1994

412/622-3375

Autry Museum of Western Heritage, 4700 Western Heritage Way, Los Angeles, CA 90027-1462 Cynthia Harnisch, Director of Education and Programs, 213/667-2000

Byron Public Schools #531, 501 10th Ave., NE, Byron, MN 55920 Catherine Egenberger, Project Coordinator, 509 Fourth Ave., NE, Byron, MN 55920, 507/775-7123

Kate Johnson, Chair, Education Department, Minneapolis Institute of Arts, 612/870-3188

Abigail Housen, Project Consultant, 213 Brattle St., Cambridge, MA 02138, 617/492-5488

Carnegie Museum of Art / Carnegie Museum of Natural History, 4400 Forbes Ave., Pittsburgh, PA 15213

Marilyn Russell, Curator of Education (Art), 412/622-3374

Judith Bobenage, Chair, Division of Education (Natural History),

Chester County Historical Society, 225 N. High St., West Chester, PA 19380 Beverly Sheppard, Associate Director, 610/692-4800

Chicago Academy of Sciences, 2001 N. Clark St., Chicago, IL 60614 Carol Fialkowski, Vice President of Education and Exhibits, 312/549-0606. ext. 2028

Chicago Children's Museum, 700 E. Grand Ave., Suite 127, Chicago, IL 60611 Darchelle Garner, Vice President, Community Services and Strategic Initiatives, 312/464-7677

Connecticut Historical Society, One Elizabeth St., Hartford, CT 06105 Kate Sawyer O'Mara, Education Associate, 860/236-5621, ext. 233 Christine Ermenc, Director of Education, 860/236-5621, ext. 224

Kentucky Historical Society, P.O. Box 1792, Frankfort, KY 40602-1792 Vicky Middleswarth, Museum Education Branch Manager, 502/564-3016

Maryland Historical Society, 201 W. Monument St., Baltimore, MD 21201 Michelle L. Carr, Education Outreach Specialist, 410/685-3750

Mint Museum of Art, 2730 Randolph Rd., Charlotte, NC 28207 Jill Shuford, School Programs Coordinator, 704/337-2033

Museum of Science and Industry, 4801 E. Fowler Ave., Tampa, FL 33617-2099 Antoinette Carregal, School and Demonstration Program Manager, 813/987-6333

New England Aquarium, Central Wharf, Boston, MA 02110 Lisa Frederickson, Supervisor of Outreach Education, 617/973-6596

Oakland Museum, 1000 Oak St., Oakland, CA 94607 Janet Hatano, Education Coordinator, 510/657-5432

Society for the Preservation of New England Antiquities, 141 Cambridge St., Boston, MA 02114
Jocelyn Young, Manager of School Programs, 617/227-3956

Utah Museum of Natural History, President's Circle, University of Utah, Salt Lake City, UT 84112 Beth Kaplan Steele, Curator of Education, 801/585-6310

1995

Brooklyn Historical Society, 128 Pierrepont St., Brooklyn, NY 11201 Laura Miller, Curator of Education, 718/624-0890

Byron Public Schools #531, Byron, MN (see 1994 awards)

Chester County Historical Society, West Chester, PA (see 1994 awards)

Chicago Academy of Sciences, Chicago, IL (see 1994 awards)

Chicago Children's Museum, Chicago, IL (see 1994 awards)

Children's Museum, 300 Congress St., Boston, MA 02110-1034 Leslie Swartz, Director of Education, 617/426-6500, ext. 233 Kentucky Historical Society, Frankfort, KY (see 1994 awards)

Maryland Historical Society, Baltimore, MD (see 1994 awards)

Mint Museum of Art, Charlotte, NC (see 1994 awards)

Museum of Fine Arts, 465 Huntington Ave., Boston, MA 02115 Margaret K. Burchenal, Head of School Programs, 617/369-3309

Museum of Modern Art, 11 W. 53rd St., New York, NY 10019 Cynthia Nachmani, School Programs Coordinator, 212/708-9796

New England Aquarium, Boston, MA (see 1994 awards)

New York City Museum School, 333 W. 17th St., Rm. 322, New York, NY 10011 Sonnet Takahisa, Co-Director, 212/675-6206 or 718/638-5000, ext. 350

New York State Museum Institute, Cultural Education Center, 2nd Fl., Albany, NY 12230 Cliff Siegfried, Deputy Director, 518/474-5812

Oakland Museum, Oakland, CA (see 1994 awards)

Old Sturbridge Village, One Old Sturbridge Village Rd., Sturbridge, MA 01566

Peter O'Connell, Director of Museum Education, 508/347-3362

Peace Museum, 350 W. Ontario, Chicago, IL 60610 Robin Walls, Project Director, 312/440-1860

Homer Society of Natural History/Pratt Museum, 3779 Bartlett St., Homer, AK 99603 Rebecca May, Facilitator, 907/235-8635

Queens Museum of Art, Flushing Meadows, Corona Park, Queens, NY 11368

Sharon Vatsky, Curator of Education, 718/592-9700

Society for the Preservation of New England Antiquities, Boston, MA (see 1994 awards)

Washington State Historical Society, 211 W. 21st Ave., Olympia, WA 98501 Susan J. Warner, Curator of Education, State Capitol Museum, 360/586-0216

Acknowledgments

True Needs, True Partners:

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