Lifelong Learners: Reaching Adult Audiences

- What About the Grown-Ups? The Changing Landscape of Science Center Programming
- Coffee and Conversation: Building Relationships through Adult Programming
- Adult Museum Programs: A Taxonomy of Learning Outcomes
Dimensions

Bimonthly News Journal of the Association of Science-Technology Centers

IN THIS ISSUE
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Are science centers just for kids? If that’s the perception our visitors have, we may be missing out on an important audience: adult learners. With populations in many countries aging as well as diversifying, and with funders increasingly emphasizing “lifelong learning” in their grant criteria, the opportunity is obvious. In this issue, we look at some existing programs and exhibitions and consider the elements of successful adult programming.

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Cover: Adult audiences appreciate a variety of educational experiences. Pictured here, clockwise from top right: a Paleontology Certificate field class offered by Colorado’s Denver Museum of Nature & Science; a visit to the BioWorks Butterfly Garden at MOSI, in Tampa, Florida; and an exhibit on the heartbeat from Secrets of Aging, a traveling exhibition created by Boston’s Museum of Science. (Photos courtesy DMNS, MOSI, and the Museum of Science)

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What About the Grown-Ups?
The Changing Landscape of Science Center Programming

By Laura Sturrmels and Carey Tisdal

Listen to current conversations among science and technology center professionals, and you’re likely to hear the words “lifelong learning” cropping up. The term is becoming a watchword, too, at many U.S. foundations and funding agencies. It appears in the Division of Research, Evaluation, and Communication’s guidelines for evaluating National Science Foundation (NSF) programs, and it is a key element of the 21st Century Learner initiative at the Institute of Museum and Library Services (IMLS).

Why are funders and museums looking beyond traditional audiences of schoolchildren and families to promote science learning throughout a visitor’s lifetime? The answer may have something to do with the recent drop-off in school visits, but a primary driver of the trend is demographics. The 2000 U.S. Census data tells us both that our population is rapidly aging (by 2030, 37 percent of Americans will be 50 or older) and that older Americans have more nonwork time and more disposable income. Similar trends apply in other countries—by 2030 the median age in Japan will be 50; in Canada, 44; and in Italy, 52.

And the baby boomer “Age Wave” is not our only opportunity. Science center missions also require that we reach out to adults in their 20s, 30s, and 40s—citizens who vote, parent, and participate in public life and the discussion of science issues.

What’s happening with adult programs?

At the St. Louis Science Center (SLSC), we wanted to develop our own set of successful adult programs. We started with a working definition of adults as “everyone over 18 years old.” But we needed to find out more about this potential audience. We devised a three-stage study—including interviews with science center colleagues, a literature review, and focus groups with our existing and potential adult audience members—to support strategic development of adult programming. This article will focus on the colleague interview stage of this larger study.

Drawing on conference sessions we had attended, and limiting our search to museums similar to SLSC in attendance and urban setting, we found seven institutions where colleagues were willing to share organizational perspectives on, and experiences with, adult programs. The list included the Denver Museum of Nature and Science (DMNS), in Colorado; the Museum of Science (MOS), Boston, Massachusetts; the Franklin Institute, Philadelphia, Pennsylvania; the California Science Center, Los Angeles; the Exploratorium, San Francisco, California; COSI Columbus, Columbus, Ohio; and the Science Museum of Minnesota (SMM), St. Paul.
We used our interviews to explore the landscape of adult programming in different organizations. What types of programs were museums offering? What kinds of audiences did they target, and what was the response? What marketing challenges did they encounter? What were their staffing levels, fees, and expectations for revenue? In comparing and contrasting the different learning strategies, challenges, and community orientations that emerged, we learned some important lessons about adult programming.

**Content and audience motivation**

One difference we found among institutions that offer adult programs was the degree to which their programming is targeted to a specific audience.

The largest and most focused effort we found was at DMNS, where three full-time staff members plan and coordinate a program of lectures, courses, field trips, and travel options that attract more than 15,000 adult participants a year (see “Hot Topics,” page 11). DMNS offerings are aimed at a clearly defined audience of older adults, 50 percent of whom have advanced degrees. This audience, says the program manager, is focused on “personal enrichment.”

SMM also offers a clearly defined set of adult programs. Their clientele, which numbers approximately 1,000 participants per year, is primarily female and middle-class. According to our respondent, the museum considers its adult programs, which include lectures, classes, and travel, to be “continuing education,” and participants are motivated by an “affection for the institution.”

In Boston, MOS staffers target a well-educated adult audience with lectures and technology-based programming that addresses current science and technology issues on the exhibit floor. The goal is to incrementally change the on-site audience mix from primarily family groups to a healthy mix of family groups and adult visitors. The programs, which are allied closely with local professional and business communities, are targeted to “18- to 69-year-olds willing to spend money,” an audience attractive to museum decision makers. The idea, according to our MOS source, is “to build a new audience of sophisticated adults.”

In Columbus, the aim and content of the programming are similar, but the format differs. COSI hosts forums that feature a broad range of viewpoints on controversial issues. The target audience is adults over 40 who want to “explore intellectual topics,” and marketing is supported by a university listserv. Forum speakers spend approximately 10 minutes sharing their perspectives with the audience, and discussion follows. The moderator is typically a weatherman, health reporter, or other interested local professional.

The objective, says our COSI source, is to get people to “think about how science affects their everyday lives.” The science center’s adult programs run parallel to its statewide workshops for teachers, but are not aimed at the same audience: “All teachers might be part of the adult program audience, but not all adult programs would target teachers as teachers.”

The Franklin Institute offers an “Explorations” lecture series for fund-raising and utilizes “opportunity programming” through venues at the center. According to our respondent, the museum is trying to cultivate an audience that encompasses “traditional non-museum-goers,” with the ultimate goal that this group return with family members.

Perhaps the most diffuse effort to reach adults we found was at the Exploratorium. Although the museum certainly considers serving this audience to be an important institutional function, “no programs are geared to specific age groups,” said our San Francisco informant. Instead, all educational offerings have multiple entry points. However, an ongoing evening program that connects the museum to local arts and science communities through experimental events organized around exhibitions and gallery space is clearly intended to attract adults.

**Goals and challenges**

Each of the seven institutions we contacted sees a different role for adult programs within its mix of public opportunities. But at the museums with larger and better-defined adult programs, two central goals emerged: (1) to provide science opportunities specifically for adults (as distinguished from family pro-
grams), and (2) to enhance the benefits of adult membership.

At DMNS, COSI, and MOS, most visitors in the galleries are younger adults with children. Programming for older adults at these institutions is aimed at providing intellectual stimulation and personal enrichment. Adult events are an important benefit for older visitors, who are less likely to come to exhibitions.

Additional roles mentioned for adult programming by various centers included fund-raising, development of young leaders, attracting older audiences to exhibitions and IMAX films, and professional development for teachers. In particular, the Exploratorium, the Franklin Institute (through their Center for Innovation), and the California Science Center (CSC) all mentioned that their outreach for adult audiences includes opportunities for teachers. CSC, for example, offers a lecture program that staff hope teachers will attend throughout the school year, later sharing what they've learned with students.

Museums face several challenges in promoting adult programs. One of the biggest turns out to be branding—i.e., the image an organization has in its community. We were struck by how often we heard that it is difficult to attract adults to an institution perceived by its community as a "good place to take kids."

The consensus was that few people think of science centers and museums as a place for adults to visit on their own. This applies more to science centers, with their interactive programs and exhibits, than to museums that have a natural history tradition. But in general, visitors over 40 appear to be an underserved audience in many institutions.

Some interviewees attributed the scarcity of adult visitors unaccompanied by children to ignorance about how to reach this audience effectively; others cited targeted marketing of the institution for families. One commented, "I wish I had a buck for every time someone told me they didn't know we had adult programs. I'd be able to retire by now."

**Costs and benefits**

Paying for adult programming is another challenge, and individual museums handle costs differently:

- At the Museum of Science, some small courses are expected to produce revenue, but most of the adult efforts are sponsored and supported by grants.
- SMM's adult programs are run by one full-time staff member. The museum expects revenues to cover salary, program expense, and institutional overhead.
- At DMNS, adult programs are clearly seen more as a member benefit than as a source of revenue. Cost recovery, including promotion, is a concern, but surplus revenue is not expected, and expensive "big name" lectures are left to local universities.
- COSI's grant-supported forums are free to the public.
- Most Exploratorium programming is considered part of the exhibition experience. Only guest lectures have an additional fee, and these, according to our interviewee, tend to attract small audiences.

Although cost recovery of direct program expenses (catering, supplies, guest speaker fees) appears to be a reasonable expectation in most museums, especially those that get help from grants or sponsorships, we found no examples in which adult programs served as a substantial source of surplus revenue. The value of adult programming appears to lie more in its potential for encouraging memberships and prompting adult attendance than in its revenue-generating capability.

**Going forward in St. Louis**

What lessons did our institution draw from reviewing the adult program landscape among fellow ASTC members?

1. First, since SLSC is a hands-on/interactive science center, branding and marketing will be a challenge for us as we spread the word about our adult programs.

2. Well-educated members over 40 are our most likely target audience as we start building a set of sustainable adult programs.

3. Current science-related issues and controversies may be good topics to focus on, and technology-based formats and forums should be considered.

4. Big-name lecture series may be a niche more easily filled by local universities. If we want to go the lecture route, collaborations, sponsorships, and grants should be considered.

5. Cost recovery for direct expenses is a reasonable immediate goal, and, as our set of adult programs grows, salary may be included. Substantial revenue from adult programming is probably not a reasonable expectation, but we can expect such programs to add value to exhibitions and membership programs that do produce revenue.

SLSC has already begun using information from the interviews to develop adult programming. We are now prototyping a six-week class called "What the Heck Is Biotech?" Also planned are lectures and classes on topics including severe weather and the early universe.

Any set of adult programs must be tied to an institution's mission and the context of the organization in the community. But the more we can learn about each other's strategies and initiatives, the better we will be able to serve our communities.

Laura Stumfels manages adult programs at the St. Louis Science Center, St. Louis, Missouri. Carey Tisdal, former research and evaluation director at SLSC, is an independent consultant. To explore this topic further, readers can plan to attend "Adult Programs: Discussing the Issues," a session at the 2003 ASTC Annual Conference, in St. Paul, Minnesota.
Coffee and Conversation:
Building Relationships through Adult Programming

By Joan L. Parrett

Today's rapidly growing, active senior population (people aged 60 and up) would seem to be an ideal museum audience, yet attracting this group to science centers—and keeping them coming back—is no easy task. At the North Museum of Natural History and Science, in Lancaster, Pennsylvania, we faced two major challenges in our efforts to create successful educational programs for this group.

The first was competition—local, county, and regional. In the city of Lancaster alone, a weekly newspaper insert lists dozens of long-standing senior program opportunities. The county's tourist industry works hard to draw residents to traditional "Pennsylvania Dutch Country" venues. And nearby Philadelphia, New York City, Baltimore, and Washington, D.C., vie for their share of retirees' time and dollars. We were entering a crowded marketplace.

A second challenge was relevance. What were the needs of this new audience? Were we prepared to meet those needs through programs tied to older visitors' interests and abilities?

Rather than opinions, we needed data—both to determine feasibility and to guide decisions. This article will describe how we tackled the challenges and devised a program that has garnered an increasingly loyal following.

The research phase

Our effort started in early 2000, when the museum's board of directors, looking for ways to expand audiences and programs, authorized a full-time education position responsible for (a) comparing current opportunities at the museum with the interests and needs of specific city, county, and regional populations, and (b) developing and pilot-testing new informal science programs and events based on the resulting data.

The position was filled in October 2000. Within a few months, we had a plan in place to assess the existing situation, explore the competition, complete a market analysis, and begin to build successful programs.

- Internal audit. We began by examining our museum records for indicators of previous success with seniors. Although in the past five years we had not piloted in-house events aimed specifically at older audiences, we saw that the museum's Rambles program (first-class vacations with a natural history emphasis) had been popular with community retirees. Older adult memberships were also usually renewed.

Next, we gathered data about our current older members. What were their membership patterns, special-event attendance patterns, and levels or kinds of volunteering? Did we show concentrations of retirees from certain industries? (This might inform decisions about topics.) Were residents from only a few retirement homes represented? Did a certain educational level predominate? Did we have many retired or active baby boomers on our rolls? Were our older members visiting throughout the year, or did they disappear in certain months? (The local tradition of "going south" for the winter could defeat programs scheduled from November to March.)

Finally, we checked our facility for barriers that might discourage seniors. We added an accessible restroom on the lower level and more benches throughout the museum, and we made sure program materials were available in large-print format. (Areas we hope to address in the future include curbside drop-off and additional accessible parking.)

- Scanning the competition. Next we undertook a survey of local program offerings for seniors. Such data exists in every community. Our information was gathered from senior center bulletin boards, newspaper ads, retirement homes, recreation centers, the
“yellow pages,” church event lists, commercial tour operators, and “senior expos” at local malls.

We looked for patterns, seeking to match strengths in our collections, events, classes, and exhibits to “holes” that other organizations had missed. (Were there plenty of crafts classes for seniors, but no computer training courses?) We looked to see if popular programs usually fell on a certain day of the week, or at a certain time. (Early risers, seniors like to “get up and go.”) What other schedule-specific patterns could we find?

* Market analysis. We did two types of market analysis. The first involved direct feedback from other providers. Contacting people like activity directors at retirement centers, pastors of large churches, and adult education program directors at community colleges, we asked what kind of difficulties they faced. Did participation fluctuate seasonally? Was there an accepted ceiling on fees? Were some programs too popular to compete against? By using these conversations to explore potential partnerships, rather than presenting ourselves as a competitor, we kept the way open for future collaborations.

Though our window for market analysis was limited, in the future we plan to look also at statistical data (see “Population Data Sources,” page 8) that might affect long-range planning.

Our best marketing source was the seniors themselves. By surveying those who already had direct or indirect connections to the museum, we not only expanded our pool of stakeholders but also learned that older visitors value non-threatening educational situations as a way to “stay sharp,” and that they prefer to attend “adult education classes” rather than “senior citizen programs.” Using the adult ed designation would produce unexpected benefits—attracting, along with retirees, adults from 32 to 59 who were currently unemployed, working on rotating shifts, or able to use midday flex time to drop in.

The most important guiding principle for our new programs came from a retiree’s perceptive comment: “Older adults need ways to build new relationships.” Seniors are often separated from family and friends through relocation, death, or illness. In designing our adult programs and events, we made sure to include opportunities for relationship building.

Planning for success

Our data revealed a number of factors that could affect our new programs:

* Retirees in Lancaster traditionally reserve Mondays for medical appointments and Fridays for barber and beautician appointments. Our largest competitor met on Thursdays. We picked Tuesdays for our sessions.
* Many local seniors go out of town in winter and summer. Eight- to 10-week semesters in spring and fall accommodate these travel periods.
* Retirees often have standing breakfast and/or lunch dates. A midmorning time slot fits their schedules.
* Accessibility counts. Attendees appreciate the availability of an elevator and a double-doored classroom. Padded chairs add to their comfort.

Based on our research, we launched our weekly “Coffee and Conversation” (C&C) program in March 2001. Each Tuesday-morning session begins at 9:30, with 15 minutes of coffee and visiting time, and continues with 60 minutes of conversation on a scheduled topic. We run two semesters a year—mid-September to October 31, and March 1 to April 30. Classes are open to all interested adults, although most of our regulars are in their 60s and 70s. Museum members attend free; others pay general admission. For mailing-list purposes, we maintain a sign-in sheet, but there is no formal registration.

All of our programs highlight...
SENIOR AFTERNOONS AT GLSC

Those quiet weekday afternoons at your science center could be the perfect time to invite older guests onto the floor and into your large-format theater. Visitors who use wheelchairs and walkers will especially appreciate the less-hurried atmosphere as they navigate the halls.

Since 1999, the Great Lakes Science Center, in Cleveland, Ohio, has promoted a “Senior Afternoon” group package Mondays through Fridays from 1:00 to 5:30 p.m. Visitors aged 65 and up can enjoy permanent and temporary exhibitions, live demonstrations, and an OMNIMAX film for $7.75, or opt for the film or exhibits only for $5.75.

According to GLSC group sales manager Bob Yun, the seniors account for 25 percent of his department’s business. “We have 50 to 60 groups that come regularly, and more on the mailing list,” says Yun. “Once they’ve been here, the film is what really attracts repeat visitors. The discount is 29 percent off the regular ticket price.” GLSC’s target market includes independent- and assisted-living facilities, nursing homes, churches, and senior centers within a half-hour’s drive of the science center, as well as bus tours and occasional AARP groups from farther afield.

Flexibility is key to the success of the Senior Afternoons, Yun says. Since most groups come in van pools of 10 to 20, the science center can afford to accept last-minute reservations or cancellations—a boon for tour organizers as well. “We allow them to pay on the day of the visit, so someone who has to cancel won’t lose their admission fee,” Yun says. “And if five people don’t show up for that day’s OMNIMAX show, it’s not a big deal for us.”

—Carolyn Sutterfield

The large-format theater at the Great Lakes Science Center is a popular draw for seniors. Photo courtesy GLSC

Lancaster County and the North Museum collections. Honoring our members’ requests for in-depth programs, we focus on one topic per term and intersperse on-site sessions with short field trips. Programs are led by a single expert or by a weekly guest chosen by the education staff. Topics to date have included the Geologic Tourist, the Archaeological Tourist (based on local Susquehannock Indian sites), the Ornithological Tourist (county bird-watching), the Arboreal Tourist (local trees, nuts, and woods), and the Historical Tourist (Lancaster’s connection to the Lewis and Clark Expedition). Tie-ins with museum collections or current exhibitions foster extended learning.

A two-way street

What I have described may seem like a lot of details, but the rewards are evident in the responses we get from C&C participants: “Thanks for taking care of us. Usually things are just slapped together for seniors.” ... “I never have to worry on [field] trips. We’re never rushed, and you help us into the van.”... “I’ve lived here 35 years and never knew this vast tree collection was 20 miles away. I’ll come back here to hike.”... “I meet such great people at these programs. Some of us are even beginning to meet for lunch.”

Each semester, C&C participation has increased. We began with six attendees in 2001; our last session numbered 25 regulars. C&C brings repeat visitors into the museum and adds more names to our members list. The Spring 2003 session produced 11 new memberships, and two participants recently became volunteer docents. At weekend events, we often spot C&C participants roaming the galleries with grandchildren in tow.

The program has even spawned an informal offshoot. On the final day of the Lewis and Clark series, participants decided to continue the interest group on their own. Using the C&C format, they will go on summer field trips to Lewis and Clark events and start meeting regularly in September.

The success of Coffee and Conversation demonstrates the validity of our mission statement, which reads, in part, “to generate interest in lifelong learning and to foster strong community involvement.” One C&C participant recently asked a staff member, “You’ll never stop these, will you?” She needn’t have worried. The relationships we have built through the program have become important to the entire North Museum family, not just to our valued older visitors.

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POPULATION DATA SOURCES

—Compiled by Carolyn Sutterfield

Administration on Aging (U.S.):
www.aoa.gov/
AoA, a federal agency, has 9 Regional Support Centers; links to state and area agencies on aging can be found at www.aoa.gov/agensites/state.html.

American Association of Retired Persons: www.aarp.org
Click on “AARP in Your State” to learn about local advocacy, education, and community service activities.

National Institute on Aging (U.S.):
www.nia.nih.gov/
One of the U.S. National Institutes of Health, and home to the National Advisory Council on Aging.

United Nations Population Information Network:
www.un.org/popin/data.html
A central guide to population information on U.N. system web sites.

U.S. Census 2000
National and metropolitan statistical area (MSA) data from the 2000 census.
Adult Museum Programs: A Taxonomy of Learning Outcomes

By Bonnie Sachatello-Sawyer and Robert A. Fellenz

In a national study of adult museum programs conducted from 1996 to 1999 at Montana State University (MSU), researchers asked 508 program participants if a particular program had changed them in any way. The study—funded by the U.S. Department of Education’s Field-Initiated Studies Program and led by Bonnie Sachatello-Sawyer and Robert A. Fellenz—clearly documented that museum programs can change adult lives and lead to transformative learning and meaning-making in participants. The following taxonomy of learning outcomes, based on the study findings, appears in the research team’s 2002 final report, Adult Museum Programs: Designing Meaningful Experiences, published by AltaMira Press.

Visualization the qualities or levels of informal adult learning as a pyramid. Our study findings show that the acquisition of skills and knowledge is the most common and basic outcome of adult learning in museums, while life-changing experiences stand at the pinnacle.

Knowledge and Skill Acquisition

When adults acquire and use new information, they are incorporating learning into their lives. As one program participant put it, “I’ve gone canoeing since taking this class, and now I hit fewer rocks.” Not surprisingly, he deemed the program a success. Along with exercising new skills, participants in a successful program are likely to be open to new ideas, pursue further study, and obtain follow-up materials.

Expanded Relationships

Expanded relationships include making new friends, developing community contacts, and sharing ideas with family, friends, and co-workers. As many participants say, “It’s great to be with people of similar interest and enthusiasm.” They often ask for more opportunities to discuss presentations with other participants.

Life-Changing Experience

- Making major changes in lifestyle
- Seeing things in a whole new way
- Developing a system for interpreting aspects of reality
- Giving back to community and helping others
- Contributing to efforts to change social patterns

Increased Appreciation or Meaningfulness

Museum programs can offer avenues for reflection and foster deeper appreciation of the arts and sciences or community issues. A participant in an art class said, “Drawing gives me a sense of peace and relaxation and appreciation of life. It’s a chance to step away from a busy life and appreciate the finer things.” Developing new perspectives and greater appreciation are dramatic examples of ways museum programs can broaden horizons and open people’s minds to new ideas. In fact, many museum program participants felt inspired to pursue further study. Adult learners used museum programs to exercise underdeveloped talents and discover new ones. Many adults who
Initially had only a vague idea of what to expect from museum programs found them interesting, even transformative. When participants walk out of a program saying, "I will buy the supplies and keep going with it at home," they exhibit a measurable indicator of personal change.

**Changed Attitude or Emotion**

Self-confidence, emotional development, new attitudes, and spiritual and personal growth can all be measurable affective results of participation in a museum program. Frequently, grateful participants openly acknowledge such development—for instance, docents who cite newfound abilities to speak in public. Personal development also can be glimpsed in the continuing behavior of learners. They may engage in similar or follow-up learning experiences, as did the participant in one science camp who said, "The class definitely changed me. I am more likely to take on camping experiences now...I have more confidence camping alone."

Other changed participants may go on to discuss relevant subjects with knowledgeable individuals, and describe new insights or appreciation. Occasionally, such learners volunteer to help at the museum. Heightened social competence is also evidenced. Participants develop interpersonal relationships, promote cultural and community values, and demonstrate civic pride.

**Transformed Perspective**

Increased tolerance of others, trust in one's own creativity, and acceptance of greater responsibility for social issues all indicate that perspectives have been transformed and meaning making has taken place. These sorts of internal changes are revealed through such remarks as, "I never thought of it that way," or "I've never seen that before in this painting."

Frequently, such learners speak about their experience. Some become more engaged with the museum as a result. When participants describe gaining a greater worldview or a new set of connections and correlations between various dimensions of museum experiences, they are articulating an awakening to new ideas. As Patricia Cranton writes in her book *Understanding and Promoting Transformative Learning*, such transformations happen "through a process of examining, questioning, validating, and revising" personal perspectives.

**Life-Changing Experience**

Museum programs that inspire participants to the point that their entire lives are changed afterward are truly the epitome of transformative learning. A particularly powerful example comes from a docent at a natural history museum who told our team, "The docent program had a definite impact on me; I left physics."

Astrophysics has taken a backstage to anthropology. It has opened up an entirely new world for me. The program changed how I spend my time. Before this I had never spent a second on life science. Such a statement clearly demonstrates the possible impact museum programs can have on participants.

Program participants who have had life-changing experiences may make major changes in their lifestyle that are quite evident to others. They may speak of seeing things in a whole new way or tell stories about new meaning in their lives. As one program participant said, "Floating the Grand Canyon was a life-altering experience. I realized that I had a place in the cosmos and was part of the timeless nature of the canyon."

Some develop a system for interpreting aspects of reality or contribute to efforts to change social patterns.

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Bonnie Sachatello-Sawyer is currently director of the Native Waters project at Montana State University. Robert A. Fellenz is professor emeritus of adult education at MSU. Other authors of the final report include Hanly Burton, Laura Gittings-Carlson, Janet Lewis-Mahony, and Walter Woolbaugh. The book is available from ASTC Publications; contact pubs@astc.org.

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MORE READINGS ON "LIFELONG LEARNING"