

Informally Speaking

The E-Newsletter of Informal Science Education Association

Spring 2002 Edition



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Welcome to the Spring 2002 Edition of Informally Speaking, the E-Newsletter of Informal Science Education Association.

ISEA would like to acknowledge and welcome our newest board members:

Julie Cross Steele from Fort Worth Museum of Science and History

Margaret Bamberger from the Selah Ranch

Rick Tinnin from the UT Marine Science Research

The ISEA web site is being revamped. If anyone has suggestions as to what they would like to see included, please email sshore@ttu.edu. We are still looking for someone to design a logo and letterhead for the ISEA.

Message from the President

It was great fun to have the 5th annual ISEA of Texas conference at Sea World in San Antonio in February. The board of ISEA wishes to thank Sea World for their generous donation of space to the conference. I know that many of you enjoyed the interactive opportunities with resident Sea World creatures and had a thrill riding the "Great White" roller coaster Tuesday night! I really liked feeding the dolphins, plus the evening we all got to see the four Shamus line up and perform for us before dinner was a wonderful treat.

We were so lucky to have had Emilio Williams with us this year as the keynote speaker. His presentation "Intentionality: Sustaining Diverse Connections" at the opening of the conference set the tone for the next few days. He also led sessions and was available to speak to those who wanted his opinion on issues about their institutions. In wrapping up, Emilio said, "If you stand for nothing, then you will fall for anything". He suggested that we have to know ourselves before we can know where we are going. Certainly this is what we were doing at our conference this year, getting to know each other and ourselves as an organization. As our membership grows (we had 29 first time attendees this year), our organization is changing and moving on.

The Sea World conference has already been referred to as, "the cold one" and for good reason. The 17degree weather on Tuesday morning was unforgettable, but equally memorable is the word of the conference, "subsumed". The dictionary defines "subsume" as "to place in a larger or more comprehensive category." Irene Pickhardt spoke of this in her presentation as she referred to knowledge that children gather along the way; science content knowledge is subsumed in lower grades and tested at the fifth grade level. I like to

think that the knowledge and awareness we gather at our annual conference is subsumed and used later on down the road.

The conference at Sea World was successful in many ways. Progress to report:

- 1) I SEA now has a checking account, an EIN or employee identification number, and paper work is in the works to establish I SEA as a 501c3 organization. Thank you Debbie Junk.
- 2) I SEA has a web mistress. Sue Shore of Lubbock Lake Landmark has agreed to design and maintain our web site on the STAT (Science Teachers Association of Texas) web site. www.statweb.org/isea. Click on I SEA providers and find your institution listed as an informal site in Texas. If you are not listed and want to be, contact me at janice.sturrock@ci.austin.tx.us.
- 3) I SEA hopes to sponsor a workshop focused on funding this summer. It will probably be held in Fort Worth.
- 4) The Inquiry Roadshow that Kit Blount discussed in her presentation about Informal Sites and Higher Learning will be introduced in May. The Texas Collaborative for Excellence in Teacher Preparation (TxCETP) Spring Forum has been scheduled for May 13-15 in Austin. For more information on this and to register, go to <http://www.sci.tamucc.edu/txcetp/activities/200205forum/>
- 5) In the "Future of I SEA" session at the conference, we discussed some national programs and the strategic plan developed last year by the board.

The Dana Center produced very nice certificates for all conference attendees. If you did not receive yours at the conference, it should arrive by mail.

Thanks to all of you who presented at the conference and to all of you who attended as well. It's the people who create the atmosphere and make the learning and sharing so rich (and warm).

Janice



A familiar sighting at this year's statewide conference!

Executive Director Notes

You are apart of a bigger picture! Now, what does that means, you ask. Our present in Texas science education is something to be proud of, and it does not stop there. Our colleagues in this field consider Informal Science as a partner for teaching Texas students. We offer resources, field experts and environments for learning and teaching science. In the past, a few formal educators knew this, but now, more and more educators include ISE as a part of their daily matrix for student interaction. The bigger picture part is the national scene where we (ISEA) are viewed as the leaders for achieving something exciting and extraordinary: joining together to serve the students in our state. I am reminded of this special ensemble of ours each year when I attend the National Science Teachers Association conference. I tell the history of ISEA to our informal out-of-state colleagues, and they listen with amazement at what we have accompanied. Yes, there are few groups that have gathered together in a region of the their state to chat about a local or regional issues, the whole state as a working unit has not just been achieved to my knowledge. Our role in the big is that we are willing to help other states establish a statewide organization. I relayed such a message recently at the NSTA convention in San Diego. I was able to participate in several of the Informal Science events at the conference. And in doing so, I highlighted many of you and your institutions. So, if you get a call from a fellow science museum, aquarium, or nature center from another state asking for advise, remember that you are a part of the big picture.

Vanessa Westbrook



San Antonio Area Informal Education Association

We are partnering with the San Antonio Urban Systemic Program (formerly the USI) to create a series of teacher professional development opportunities. This summer we will offer two teachers institutes for educators from the major school districts in San Antonio. The first weeklong institute is for teachers who are interested in learning to use local informal science resources as inquiry-based research settings. This will support inquiry teaching in classrooms, which will be reflected on the upcoming TAKS tests at 5th and 11th grades. The second summer institute is a three-day workshop for teachers interested in learning how best to use community resources (i.e. informals) as field investigation sites. Participating informals in both of these workshops will include Texas Parks and Wildlife, the City of San Antonio Natural Areas division, the Cibolo Nature Center, the Witte Museum, and the Challenger Learning Center. These teacher institutes are a first step in a long-term collaborative effort with the USP to bring the resources of the informal community to San Antonio's teachers and schools.

North Central Texas Regional Network

In an effort to organize a regional network in north Texas, staff from Dallas Museum of Natural History, EPA, Region 6, Botanical Research Institute of Texas, Coastal Bend Council of Governments, and the Fort Worth Museum of Science and History met in an open space session. They discussed forming a regional network with the purposes of:

- Communicating with informal facilities in our area the opportunities in our area
- Being able to bring in other people and speakers to the this (formed) larger group
- Sharing our opportunities on a website / get listed on ISEA website page or link
- Getting an email list of area informals

Coastal Region Informal Educators

Veronica of Corpus Christi group described their annual information event at one of their sites where each member of the group hosts tables of information. Invited educators pick up information, talk to staff and tour the host site. Dallas Museum of National History staff talked about museums and facilities in the Dallas area holding a similar information event at Fair Park in Dallas. In response to the question of how much area to include in the network, Vanessa Westbrook described Lubbock's regional network as including only the city's informal sites, while Corpus Christi's network included sites all along the coast.

Suggestions for next steps included contacting the North Central Texas Council of Government (NCTCOG) to help delineate the region, emailing invitations to other area informals to join, and hosting another inquiry session for informals to attend.

Austin Collaboration of Cultural and Educational Sites with Schools

ACCESS continues supporting the unique ties to schools found in its origins with the National Smithsonian Faculty program. School district personnel, school teachers and informal site educators attended the most recent meeting at Texas History Museum. ACCESS is planning for a three day institute held in conjunction with the social studies institute in June, to introduce teachers to sites that could support their instructional mandates. Contact Donna Vliet at 512-471-6346 or donnavliet@mail.utexas.edu for more information.



*Irene Pickhardt
from Texas
Education Agency
presents at ISEA's
2002 conference.*

Irene Pickhardt, Assistant Director for Science at Texas Education Agency presented the conference participants with the most recent focus and changes at TEA regarding opportunities for informal sites to assist in science education. Current concerns at TEA about formal science education include:

- Science as a foundation course. Although it is required, many teachers do not present science in their class. It enhances math and it's content is in 40-60 % of the test reading questions, so by its nature, science curriculum supports other content areas.
- Textbooks are resources ONLY; to be used to support lessons, not in exclusion of a rich learning environment.
- Teachers need enough time to teach and students to learn.

The newest developments in teacher requirements that have the capability to impact informal science programs include:

- TAAS science test for 5th graders.
Science will no longer be tested at the 8th grade level; instead, beginning in 2002/2003, science will be tested at the 5th grade level. Unlike the earlier elementary level science testing piloting in the 1990's, this TAAS will not have a performance portion of the test. This means administrators will shift resources straight out of middle school to the elementary level. The students will need to use equipment including, calculators, metric ruler, and periodic table.
- Social Studies Linkage
World geography and world history will be linked. Look on TEA's website for a chart showing how these will be linked. See tea@state.tx.us, under What's New?
- Mathematics Testing Instrument
The newest tests will have the ability to require exact numbers to be bubbled in, so that there is no longer just 4 multiple choice answers for math problems. (A little more formidable for students, requiring more accuracy.)

These changes can provide opportunities to informal science education sites to assist teachers. Some of Irene's suggestions;

- Make sure to have stories that go with what the informal site is about, so students get that practice.
- Teachers need a narrower range of age appropriate materials, since specific content is being tied to specific grades.
- Informals should link programs to assessment tools.
- Teachers need materials and assessment for English Language Limited classrooms.
- Science programs should teach for 5th and middle school level grades.

FOCUS ON: Science on Site

In response to an open session meeting at the conference (see Shane Macfarlan's write up below), Informally Speaking would like to feature scientific evaluation of site programs in future newsletters. Please contact Margaret Russell at margo.russell@altavista.net with information. Other areas of information include [National informal education organization newsletters, such as Data also available from Visitor services associations. Texas Tech University research grants](#)

Open Session: Scientific Methodology and Research

Shane J. Macfarlan

The open space session on Scientific Methodology and Research was a productive one. The topic included the questions, "Will the ISEA contain a component that supports and promotes scientific research of the educational components and proper methodology within member institutions?" and if so, "Can the ISEA serve as a venue for the display of such information?" Since research is both time consuming and expensive (given most informal institutions are already under staffed and under funded), the group recommended increased partnerships with regional collegiate institutions, the use of volunteers, and support from ISEA for scientific research and proper methods within member institutions. Suggestions included using the ISEA newsletter as a venue for the summaries of member institutions' research, and that a database for educational and scientific research should be created and maintained, perhaps in conjunction with the ISEA website. In the future, ISEA conferences could contain at least one session dealing with the interrelated topics of, 1) the kinds of scientific and educational research are being performed by member institutions; and 2) whether the research designs are accurate and applicable to other institutions.

As Science Educators we all have the dual responsibility of being both educators and scientists. In a profession where we must constantly justify our existence to the public, it makes financial sense to promote scientific research and proper methodology within our institutions, as this will bring about public awareness to the institution and consequently, funding to support future endeavors.

The mission of the Informal Science Education Association is to improve science education in Texas by collaborating among informal science educators.

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