## 1<sup>st</sup> New York State Earth Science Teachers Conference Evaluation

How did you hear about this Conference?	
List-Serve or e-mail	23
E2C	3
From a friend	2
From an administrator	2
DLESE meeting	1

What factors made you decide to attend this Conference?

- availability, interest
- desire to get together with other Earth Science (ES) professionals in NYS
- topics of interest as prep for 2004 2004 ES class
- quality of other LDEO conferences—E2C, Open House, etc.
- location, time of year (summer is good)
- professional development; surf ideas and resources for the next semester
- returning to teaching ES after full Physics
- love the opportunity to interact with other ES teachers
- the high quality of E2C class and Lamont and Mike Passow as presider
- more help in ES
- [no response] xxx
- My need to improve my practice
- Had a free week; always interested in furthering ES education; friend said she was staying at my home [for the conference]
- I wanted the conference to be a success because I think it is important. I thought it would be more statewide.
- I'm a new teacher thrilled w/ the ES list-serve and thought this would be a logical extension of the experience w/ live people. I want to get as much help/exposure as possible.
- I know that I always learn from LDEO scientists and my colleagues.
- Field trips, research scientists, opportunity to network face to face w/ other ES teachers
- Personal professional development
- I need to stay up-to-date on the subject matter I teach. I want to advance my knowledge and my professional development
- To learn new topics in ES and teaching methods
- Opportunity to see LDEO, going to be in area for related training [DLESE]
- Opportunity to meet and network w/ other ES teachers and share ideas
- Visit the LDEO; meet some research scientists; share ideas w/ other professionals in the ES field; make contacts
- Own motivation to have better Regents results
- Chance to network
- Already attending DLESE training; chance to get fresh perspective
- Need to expand knowledge in ES
- To expand knowledge of geoscience, develop teaching strategies & activities
- I am a new teacher and benefit from experienced teachers; the research scientists at LDEO are fantastic!

What do you consider to be the strongest aspects of this Conference?

- Wednesday was great—Klaus was terrific, discussions were good & presentations from groups were useful
- Always the opportunity to learn new information from professionals. The opportunity to network in person with colleagues. Sharing ideas.
- DLESE
- Relating classroom to field experience
- Meeting of minds & Lamont research scientists
- Well-organized, good scientists/speakers
- Content in keynote speakers & DLESE presentation
- The ability to interact with other ES teachers in person
- Hearing from the Lamont professional staff as well as the DLESE piece
- Not sure
- To expand knowledge, conference with other teachers
- Networking
- Getting together with other ES instructors
- The guy at ODP [Gar Esmay]
- Interesting speakers (Wally & Klaus), time to break and talk with each other, earth science ONLY has been great
- Location at Lamont-Doherty with research scientists, tour, facility; ability to network with other ES teachers
- Presentations and the Internet resources
- The contact with cutting-edge research professionals has to be one of the most positive aspects of the program. The group sessions were also very positive.
- Talks on the current state of research
- Caliber of scientists and location
- Ability to network
- I enjoyed every aspect of the conference especially the lectures and teacher sharing at the last session
- Using scientists to inform teachers
- Dedication of the teachers (inspirational & informed)
- Exchanges of tips, URLS, ideas
- I enjoyed sharing ideas & techniques with fellow ES teachers
- Entire conference: lectures, feedback with other teachers; one-on-one; resource materials
- The interface between research scientists and teachers brings science to life

What do you consider to be the weakest aspects of this Conference?

- Unfortunately I was sick and missed Day 2—I would guess a bit too much discussion time Day 2
- Limited funds
- 'didn't see anything weak' XXX
- Chosen scientists should be those who can explain their topics in an understandable manner. Presentation skills should be considered
- Only NYC & vicinity participation
- Timing not great because there are many other people that would have loved to be here and contribute or benefit
- Teaching and assumptions related to teaching abilities especially political issues over who is in charge and therefore who is controlling both explicit and hidden agendas
- The transportation...buses not knowing where to be in the morning or where LDEO was...was the weakest part of the whole program
- The teacher methods application
- Too much group discussion that was not facilitated, where people got off topic
- I was a bit oversaturated with information
- Need for increased availability of resource materials (physically); ex., field trip guides, Peterson guides
- Active demonstrations of teaching methodologies
- Need directions to LDEO, not just STAC. Seating could be improved—every seat is taken in the room but there is an empty 200 sq. ft. area in the middle of the room. Seating was too tight.

Please rate the scientists' presentations.

5 (most favorable) 4 3 2 1 (least favorable)

Weighted average = 4.6

- Please give all of the LDEO scientists my thanks for reaching out to teachers
- I like the lecture format.
- Klaus Jacob
- OK for me, but some of the teachers didn't have prior knowledge to follow research.
- Wallace Broecker was outstanding. Dave Goldberg was OK. Klaus Jacob was great.
- Excellent connections to "real life" for my students
- Fantastic! 'm glad I had the opportunity to attend.
- Fascinating to hear directly from scientists. I especially enjoyed Wally Broecker & Klaus Jacob.
- Presenter 1 = 3; 2 = 4; 3 = 5-Great!
- Climate presentation was awful. Methane almost as bad—if you looked around the room, you would have seen many were sleeping. Earthquakes presentation terrific.
- These presenters have given me a great amount of information & concepts that I will implement with my 12<sup>th</sup> graders.
- All the presentations were wonderful. I especially felt that Dr. Jacob's presentation was something I could bring back to my classroom.
- The presentation by Dr. Jacob was seemingly much more applicable to classwork.
- Factual presentation of the topic
- Very informative. Thank you!
- Knowledgeable—interesting and handled questions well.
- Intriguing topics
- Klaus was the best!

Rate Tuesday's Group Break-out Sessions. Weighted average = 4.3

- I appreciate the focus on providing resources for teachers and allowing time for exchange of ideas.
- Campus tour and "It's About Time" presentation very interesting. DLESE presentations too long.
- Not a lot of time for this because of great tours
- The Core building and the seismic monitors were great. The scientists were knowledgeable & entertaining.
- Good ideas & conversations
- I look forward to seeing if we had any impact.
- There was none and there was no real consideration of any issues. Mike controlled the blow by emphasizing how to address new teachers' content knowledge or how to teach a topic. But there are other more important matters.
- The tour was the best. DLEE was informative. I look forward to using it as a resource.
- Walk-arounds
- The first 15 minutes of the DLESE was good....The ODP was the best. The Core Lab was interesting.
- DLESE was useful. Tour very interesting. Textbook company showed a bias. If you have one company presenting, there should have been many.
- The activities within each session felt rushed.
- Good conversations
- Particularly enjoyed the ocean bottom seismograph presentation.
- Excellent. Lots of relevant information from guest speakers that I can't learn from a book
- Tour of campus was excellent. DLESE—now something I understand and am ready to use. It's About Time—already introduced to the series.

Rate the teacher-to-teacher discussion sessions. Weighted average = 4.7

- Good discussions on problems we face, ways to present content
- Good brainstorming
- The planning/syllabus/resources breakout session was a gripe session. The others were incredible!
- I appreciate leading the discussion on planning.
- Overall—great! Some better than others, but I got great ideas, not only in the formal setting, but also informal at meals and breaks
- Group #1 Rocks!
- Very productive
- Co-opted by one person, but we got over it.
- Brainstorming is very powerful
- Good ideas but strayed from the question
- My group was great. So was full group discussion.
- It's always great to get to network and share ideas with other teachers of the same discipline.

Rate the Conference logistics: Room Weighted average = 4.4

Refreshments/food Weighted average = 4.2

Hand-outs Weighted average = 4.6

If you stayed in the dorms, rate the housing arrangements? Weighted average = 4.1

- Spartan, but acceptable
- Next time I'll bring a radio or TV to stay connected with what's going on in the world
- Average—good because inexpensive
- Very reasonable—price is right! Uncomfortable beds—OK for a few days. Appreciated the shuttle bus.
- More private than expected—great!
- It was good value for the price.
- Fitted sheets instead ofg flat sheets are necessary as a bottom sheet to stay on bed.
- Need to see where the AC switch is. Thank you.

In what ways might your teaching and professional development change as a result of this Conference?

- This conference has provided me with a unique opportunity to listen and interact with scientists and see them as human beings. As a teacher, I hope to put a human face on science by telling my students about real-life scientists. Also, I would like to have professionals come into the classroom.
- More emphasis on small group interactions for students (away from lecture)> Try to make use of available electronic resources, technology, outside speakers.
- Increased use and inclusion of recent research and technology into lectures, power point presentations, and lab talks.
- Interacting with other teachers has definitely exposed me to new ideas & ideologies that will certainly benefit me as an educator.
- Re-invigorated. I just reset general themes: (1) energy, (2) Earth materials, and (3) Position in Space
- I will become part of the list-server and will check out DLESE often
- I learned new resources and met people within group
- Awareness of great support system to rely on
- I will incorporate the real-world examples the scientists provided. I also received excellent ideas from my colleagues.
- Many new resources for content
- To have student level research opportunities
- It is just a motivation experience working with colleagues.
- Deepened my awareness and knowledge, familiarized me with LDEO that I can relay to others; helped me to reconstruct my knowledge of certain topics.
- More technology in my classroom. More inquiry-based lessons/labs
- I will as usual incorporate research ad websites from scientists' presentations. Hearing what other people do always provides a source of ideas and a source of some perspective. The info and books and materials from sponsors in always good, too.
- Make more personal connections w/ offers of help from experienced teachers. Rec'd great materials (fossils, books) for use in class or to prepare lessons & for personal field trips.
- New information, networking. More tools for me to use.
- I am encouraged to improve my teaching. I am aware that I can get help. I am eager to start shifting direction toward inquiry-based teaching.
- I will try new inquiry lessons learning in It's About Time presentation.
- I will use the power points seen here at Lamont via conference—Klaus as well as E2C power points—for classes.
- I am always looking for new ideas to be a better teacher. I have to evolve and adapt if I ever want to do well. Just by talking to other teachers I heard some great ideas that I might be able to use.
- I will be using DLESE & E2C website in designing and constructing future lessons & will be using the E2C website for student work as well as DLESE
- I will consistently, persistently, and insistently use It's About Time/Earth Comm's 5Es and POEs. The DLESE will be utilized extensively, too, through this conference..
- Enhancement of knowledge, these "tidbits" are the ones that get students interests
- I expect to add more group graphic work; i.e., classroom size charts o weather patterns for students to fill out.
- I anticipate heavily using DLESE & other materials (pictures I took, handouts, etc.) given during the session

[Note: Some of the following include participant responses in more than one category due to multiple teaching assignments, certification areas, etc.]

Subjects taught: Earth Science Life sciences Physical sciences Electives Retired	23 6 6 5 2
Grades taught: Middle School High Schools Retired	12 23 2
Years of experience 0 - 1 2 - 4 5 - 10 11 - 20 20 + 10	3 9 6 6 7
Area(s) of certification: Earth Science Biology Chemistry Physics Elementary Non-science Special Ed	25 12 6 5 3 3 1
Undergraduate major: Geosciences Biology Chemistry Education Other	13 8 2 1 7
Highest degree BA/BS MA/MS/MAT Ph.D.	4 26 1
School setting: urban suburban rural	16 14 1

How active are you in the ESPRIT List-server?

Frequent contributor—10 Frequent reader only—13 Rarely/not involved—8

What are your main sources of information for profession development and expanding your subject content knowledge?

- Mike Passow, summer courses, Discover magazine, Natural History magazine, Internet, TC, newspaper
- Conferences such as this one and the ESPRIT List serve
- Summer conferences/classes. Prof. organizations
- Conference classes—books—Internet—field studies
- Multimedia in the classroom
- ESPRIT, OPHIN-L, BAP, conferences, summer coursework opportunities, E2C
- Workshops, ESPRIT, and college courses
- E2C class, web use, and DLESE, STANYS Conferences
- Conferences, internet, sharing with teachers, E2C
- My own readings, Internet sources
- SED committees in Albany, attending workshops, listserv, tutoring online which causes me to "get lost" in various websites
- Scientific American, PBS Radio & TV, Hamilton College Geology Dept. programs
- Colleagues
- ESPRIT, books, Internet websites, classes, and workshops
- LISTSERV! Monthly meetings at Whit Plains MS, my teacher center, NYSUT newsletters, etc., E2C
- In-service through school district; took many courses through Brockport, listserve, STANYS
- Internet & library; AMHS also has useful resources
- ESPRIT, BOCES Monroe #1 and 2, STANYS
- Reading journal and online sources
- List serve, mailings, STANYS
- ESPRIT list serve, Internet, online workshops, NASA workshops, STANYS & NSTA activities
- Workshops, Internet
- ESPRIT List serve
- Colleagues in my highs school
- List serve, Internet
- Scientific American, NY Times, various books (Voyage of the Beagle, How to make a T Rex, Desert Solitaire, Arrow of Time)
- ESPRIT, participant in PD at Bronx Community College
- E2C, USGS, LDEO, NASA

What are the main "barriers" that interfere with you ability to expand subject content knowledge and increase your professional development?

- Time—perhaps a brief (1-3 hour) distance learning/web course that administrators would approve as work during a teacher day/superintendent's conference day
- Not enough appropriate prof. dev. Workshops/conferences. Not enough time.
- Time! \$! (5 respondents)
- Time (6 respondents)
- Scheduling in the year. I don't like to miss time out of school. District doesn't approve that often.
- With E2C I don't feel restricted. More difficulty to find professional development in physics.
- I have been very lucky to be able to attend workshops. I still need more assistance in discovering ways to present this information to students in a way that they would understand and enjoy
- Ability to get to NSTA & time away for conferences
- Regents curriculum
- Lack of time. Lack of a network in my locality (This is a reflection of my lack of effort, but it will change.)
- Physical plant of school
- Time, ease of access(sometimes), district limitations
- Knowledge of where the conferences are in this region
- The SARs in Earth Science in the Central Western zone do very little to encourage professional development. They take care of most small tasks like new test prep for us, but they do not go beyond or truly develop a sharing of methodology
- Time and how useful it is to the classroom
- Prior mentors/access to good materials, unit plans. I had to reinvent the wheel during my first two years of teaching
- Lack of time to develop lessons; lack of support from my administration

Have you previously participated in Earth2Class Workshops? Yes-10; No--19

Have you attended LDEO Open Houses? Yes-9; No-18

In which (or none) AMS Education courses have you participated?

None—22; DataStreme Atmosphere—4; Water in the Earth System—4; Maury Project Training--1

Are you a member of STANYS? Yes-24; No-8

Section?

```
Westchester—9
Southern—3
Nassau—2
Central Western—2
Suffolk—1
Southeastern—1
Mohawk Valley—1
New York City--1
```

Have you attended the annual conference? Yes-17; No-14

Local events? Yes-16; No--15

How active are you in STANYS? Range from "not at all" to "Board of Directors"

To what other professional organizations do you belong?

NESTA—9 [sponsors ES Breakfast at annual STANYS Conference] NSTA—8 GSA—5 NAGT—4 NSMEA—3 Others—8 None listed--11

How active are you in these organizations? Range from "not at all" to "newsletter editor"

Other comments:

- Thank you for all your hard work. This conference and your work with E2C is a wonderful example of entrepreneurial development in education. Congratulations!
- Great conference! Lots of ideas, support! Very positive. Good luck to us.
- Thank you for hosting this. The tours were terrific! I've heard about LDEO for years—now I've been in the "hallowed" halls. It was neat to see the ocean bottom seismometers up close.
- Need session on field trip collecting, fossils, specimens, etc. More meet & greet. However, it was great to put faces with names from the list serve.
- A significant barrier to being active in these organizations is the "permission" structure of each organization. I feel strongly that permission should not be required for any presentation or participation. This is a barrier imposed upon our professional autonomy.
- Thank you so much, Mike, for organizing this. You are a credit to your profession—thanks for all that you do.
- Great job on 1<sup>st</sup> ever ES Teachers Conference!
- I wasn't sure what the conference would do for me, but of course I knew it would help me as a new teacher. Yes, it has! Made new or stronger personal contacts.
- I am starting to get involved. I am intending to take advantage of the existing resources. I am very optimistic about the possibilities.
- We need a 1<sup>st</sup> Student ES Conference at Lamont. I would try to help run it.
- Thank you, Dr. Mike. Job well done.
- Great job on our first conference, Mike. I look forward to many more.