

Using Science to Teach Science: DLESE Annual Meeting Brings Together Researchers and Educators to Enhance Geosciences Learning

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1. Abstract

The Digital Library for Earth System Education (DLESE) is a distributed community effort involving educators, students, and scientists working together to improve the quality, quantity, and efficiency of teaching and learning about the Earth system at all levels. Since its inception in 2000, DLESE has hosted annual meetings to bring together community members to discuss issues related to defining, building, and expanding the library. These NSF supported meetings are designed to provide outreach tools to educators along with input by the geosciences education community into the development of library services. The 2005 Annual Meeting hosted by the University of South Florida's College of Marine Science emphasized the role of ocean sciences as being integral to Earth system education. Using the extensive marine research community in St. Petersburg, Florida, the program included a diverse group - educators, researchers, and students - who participated in a wide variety of activities including: workshops, field trips, birds of a feather sessions, design review sessions, focus groups, reports to the community, lab time to engage in resource review, and plenary sessions with keynote speakers. This year's meeting integrated two activities - outdoor field trips and indoor labs - that in the past were optional components of the conference. This gave every participant an opportunity to engage in innovative and interactive ocean-based field trips and labs followed by hands-on applications of library resources in workshops and focus groups. Through these fun and informative activities, educators and students enhanced their understanding of library tools and mastered new concepts, while researchers developed a greater understanding of what educators need to effectively disseminate geosciences to diverse audiences. Additional activities included a Share Fair for participants who wanted to demonstrate educational resources, tools and services in support of Earth system education, and a DLESE-in-Action Forum for teachers, curriculum developers, and DLESE users to share their unique adaptations of DLESE resources in their daily practice. The results and evaluations by the annual meeting attendees will be presented.



2. Introduction

- Sponsored by National Science Foundation
- Educators, Researchers, Students
- Plenary Sessions, Workshops, Focus Groups, Design Review Sessions
- DLESE in Action Forum, Birds of a Feather, Share Fair, Social Events

3. Goals of the 2005 Annual Meeting

- Inform and report on the state of the library and recent activities
- Enhance the quality of the library and best practices in all its dimensions
- Encourage diversity in all dimensions of library services
- Advance individual professional development



4. Field Trips and Indoor Labs

- First annual meeting to integrate outdoor field trips and indoor labs
- Interactive activities between researchers, educators, and students
- Hands-on applications of DLESE resources
- Opportunities for networking and professional development



"I think the field trips added a new and real earth science dimension to the meeting."
"I love the interaction of teachers and scientists/collection developers."



"This was an amazing conference. I am bringing back many resources & ideas to my school."
"The diversity amongst the participants was really nice and paved for great conversations."



"We were able to build and launch an underwater ROV. It was a truly exciting experience!!"



"It was wonderful to take a sample of water from the ocean and test it in the lab."
"The excelgraphing of data from the DLESE website was excellent!"



"Doing real science instead of talking about doing science was invaluable."
"Integrating the field trips within the conference was an EXCELLENT idea."



"The hands-on experience is a great way to learn and will increase the likelihood that I will produce a lab that is hands-on for my students."

5. Results and Evaluations

- Over 95% of participants reported attending workshops and the Share Fair
- Overall, the highest rated activities were the Field Trips
- Based on their experience in the 2005 DLESE Annual Meeting, 97.8 % of participants would return to next year's conference

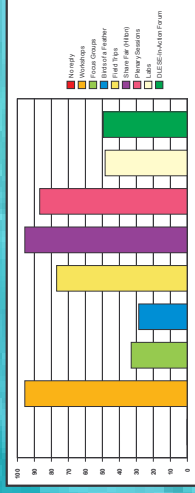


Fig. 1: Percentage of sessions attended as reported by conference participants

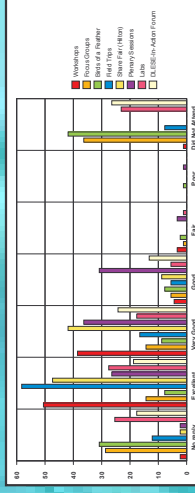


Fig. 2: Overall evaluations of sessions attended as reported by conference participants

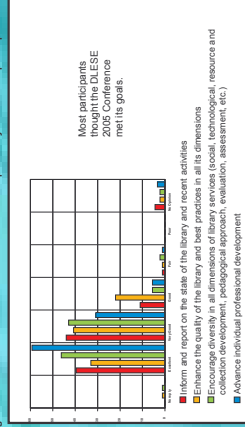


Fig. 3: Overall ratings of the conference with regard to each of the 2005 Annual Meeting goals as reported by conference participants

6. Conclusion

- The conference evaluation results indicate that the 2005 DLESE Annual Meeting met its goals
- "The scientific-education information is state of the art. The professional development is well organized and implemented."
- "Continue the practice of embedding the field trips into the meeting ... opportunities for community building as well as first-hand experience with scientists are particularly valuable."
- "DLESE is directly relevant to my work. These meetings give me an opportunity to see current digital library related projects, get direct feedback from teachers."
- "... the conference was excellent in every respect. A great balance between workshops, fieldtrips and lab. There was also an excellent balance between K-12 teacher, university faculty and scientists."

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