

Summit

to Create a Cyber-Community to Advance
Deaf and Hard-of-Hearing Individuals in STEM

Participant
Evaluation
Report

2008

Summit to Create a Cyber-Community to Advance Deaf
and Hard-of-Hearing Individuals in STEM (DHH Cyber-Community)

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SUMMIT TO CREATE A CYBER-COMMUNITY TO ADVANCE DEAF AND HARD-OF-HEARING INDIVIDUALS IN STEM (DHH CYBER-COMMUNITY)

Participant Evaluation Report

Introduction

The Summit to Create a Cyber-Community to Advance Deaf and Hard-of-Hearing individuals in Science, Technology, Engineering, and Mathematics (S'TEM) occurred on June 25-27, 2008 on the campus of Rochester Institute of Technology (RIT) in Rochester, New York. This Summit, led by RIT and the University of Washington (UW), was supported by the National Science Foundation under Award No. OCI-0749253.

The goal of the Summit was to conduct a three-day conference with approximately 50 leaders in the field of support service provision for postsecondary deaf students in STEM programs.

Forty-four leaders from across the country participated in the Summit based on their experience and/or level of expertise in one of the following six areas/stakeholder populations:

- ◆ Educational, Linguistic & Sign Language Researchers and Developers
- ◆ Coordinators of Support Services
- ◆ S'TEM Faculty
- ◆ Cyberinfrastructure Specialists
- ◆ Educational Captionists and Interpreters
- ◆ S'TEM Students



*Leaders from Across the Country Participate in Summit
to Create a Cyber-Community to Advance Deaf
and Hard-of-Hearing Individuals in S'TEM*

The primary outcome was to report on the current state of on-line remote interpreting and captioning, and identify the benefits and challenges associated with creating a multimedia cyberinfrastructure that would provide remote communication support for deaf and hard-of-hearing students in S'TEM mainstreamed classrooms. The expectation is that the final report will help formulate future proposals related to the creation of a cyber-community to benefit deaf and hard-of-hearing individuals involved in S'TEM programs.

In an effort to gauge effectiveness, an evaluation was conducted with participants at the conclusion of the Summit. The following report is a summary of the evaluation findings only.

The final summary report that incorporates the outcomes and recommendations from the three-day Summit can be found at www.ntid.rit.edu/cat/summit.

Methodology

Evaluation Design

The Summit evaluation instrument contained 15 questions. The types of questions included rating scale, open-ended, and classification. The rating scale questions were based on either a 5-point scale ranging from “strongly agree” to “strongly disagree,” or a 4-point scale ranging from “excellent” to “poor.”

In addition, respondents were asked, in open-ended format, what they liked most about the Summit, suggestions for improvement, and additional recommendations to include in the final report. Respondents were also given the opportunity to write in any additional comments.

Sampling

The evaluations were conducted using a self-administered methodology. Participants were encouraged to complete the evaluations on-site at the completion of the Summit.

A total of 26 Summit participants completed an evaluation form resulting in a 59% response rate and a margin of error equal to +/-12% in estimated values of the total participant population.

Analysis

Most of the findings are presented using percentages. For all rating scale questions, the total responding to the question was used as the percentage base. For other types of questions, the total sample was used to compute percentages. The percentages for individual response categories do not always add up to 100%. This results from either rounding factors, a small percentage of no answers, or multiple responses provided by respondents.

In addition, all open-ended questions were coded in an effort to quantify responses. The actual verbatim responses are included at the end of this report.



Student Group Participants Lead Panel Discussion

Overall Level of Satisfaction

Respondents were asked to rate their overall level of satisfaction with the Summit, and the strategies for supporting communication (interpreting, captioning).

Eighty-five percent (85%) of respondents rated the Summit as “excellent” and the remaining respondents (15%) rated it as “good.”

“Interaction, brainstorming great ideas, positive advances in STEM education on various fronts. So wonderful to be a part of this exciting project.”

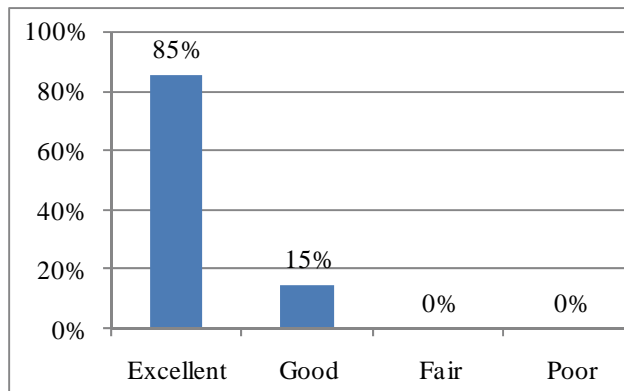
“Well organized! Good job soliciting and collecting ideas.”

“We have a long way to go before achieving our goals in the Summit, but this is a great start!”

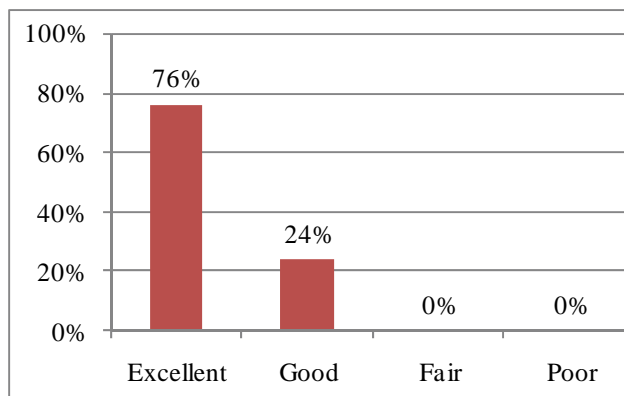
Three-quarters (76%) of respondents rated the strategies for supporting communication (interpreting, captioning) at the Summit as “excellent” and one-quarter (24%) rated these strategies as “good.”

“Great last minute ‘fix’ for panelists to access the CART! Wonderful interpreting and captioning support.”

Overall, I thought the Summit was...



The strategies for supporting communication (interpreting, captions) were...



Both Interpreting and Captioning Services were Provided During the Summit

Satisfaction with Organization and Facilitation of the Summit

Respondents were asked to rate their level of agreement with a series of statements related to the organization and facilitation of the Summit.

More than 90% of respondents either strongly agreed or agreed with eight out of the nine attributes.

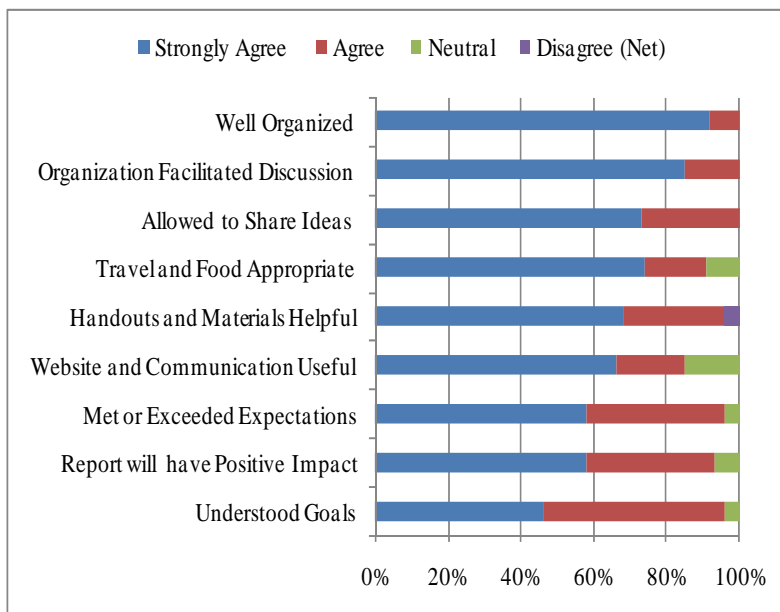
All (100%) of the respondents agreed (strongly agreed/agreed net score) that the Summit was well organized, the design facilitated discussion, and that they could easily share ideas and suggestions.

Similarly, 96% either strongly agreed or agreed that the handouts and other materials provided during the Summit were helpful, that the Summit met or exceeded expectations, and the goals of the Summit were clearly understood.

A total of 93% of respondents expect the final summary report will have a positive impact on the future use of Cyberinfrastructure for STEM students (58% strongly agreed, 35% agreed).

Almost all of the respondents felt the travel arrangements and food services were appropriate (91% strongly agreed/agreed net score), and that the resources provided on the Summit Web site and through email communication were useful in preparation of the Summit (85% strongly agreed/agreed net score).

Level of Agreement with the Following Statements



“I enjoyed the information and open format and the smooth flow of discussion.”

“Support people could not have been more helpful! Would like to particularly thank Mary Lamb for her assistance with travel arrangements. She was very responsive and pleasant.”



James J. DeCaro and E. William Clymer of RIT/NTID - Center on Access Technology Facilitate Discussions

Strengths and Opportunities for Improvement

Respondents were asked, in open-ended format, what they liked most about the Summit, and how the Summit could have been improved.

Over half (58%) of the respondents said they liked how the Summit was a collaborative effort that brought together differing perspectives.

“I really enjoyed the discussion and exchange of ideas. It was interesting to hear about all the different perspectives.”

One-quarter (23%) mentioned that they appreciated how the focus of the Summit was to advance STEM education which, in turn, exposed them to new cyber technology.

“This Summit allowed for positive advances in STEM education on various fronts.”

Others said they liked how well the Summit was organized (19%), and the opportunities to network with other professionals (15%).

The suggestions for improving the Summit varied.

Fifteen percent (15%) of the respondents felt there should have been more representation from other stakeholder populations. Suggestions included employers, secondary educators, STEM interpreters/captioners, administrators, hearing students, and faculty members who encounter a deaf or hard-of-hearing student on occasion.

“We needed to hear from faculty that sometimes encounter deaf or hard-of-hearing students.”

What did you like most about this Summit?

- ◆ Collaborative Effort/Differing Perspectives/ Good Exchange of Ideas (58%)
- ◆ Advancing STEM Education/Exposure to Cyber Technology (23%)
- ◆ Well Organized/Clear Goals (19%)
- ◆ Networking Opportunities (15%)

What are your suggestions for improving the Summit?

- ◆ Representation of Other Stakeholder Populations (15%)
- ◆ More Representation of Hard-of-Hearing Individuals in Constituency Groups (15%)
- ◆ Needed More Time to Develop and Present Group Findings (15%)
- ◆ Clearer Discussion of Goals/Outcomes (12%)
- ◆ Day One Too Long/Avoid Evening Work (12%)
- ◆ Facilitate Future Group Meetings (12%)



Facilitators of Support Service Coordinators, Denise Kavin and Marcia Kolvitz, Prepare to Present Group Findings to the Summit Gathering

Strengths and Opportunities for Improvement (con't.)

Fifteen percent (15%) of respondents felt there should have been more hard-of-hearing representation within the constituency groups; the student group being the only exception. Similarly, 15% mentioned that they needed more time to develop and present their information.

“A bit longer would be good. More time to work/research in our groups.”

Other respondents suggested providing participants with a clearer understanding of the goals/outcomes of the Summit (12%), avoiding evening work (12%), and facilitating future work among the constituency groups (12%).

“I would like to continue involvement in this cyber-community once the Summit is over. We have a great group with so many wonderful ideas and abilities to move STEM resources further.”



Constituency Groups Present Group Findings to Summit Gathering

Additional Recommendations

Respondents were asked if they had any additional recommendations for inclusion in the final report. Most respondents were satisfied with the recommendations outlined by their constituency groups during the Summit.

Twelve percent (12%) of respondents wanted to make certain that deaf and hard-of-hearing individuals, as well as all of the stakeholders populations, are involved in every phase of this project as it moves forward.

Other respondents expressed the importance for this remote technology to transfer to the workplace (8%), and the need to seek additional funding in order to actually implement a cyberinfrastructure to advance STEM education (4%).

Do you have any additional recommendations for inclusion in the final report?

- ◆ Involved Deaf and Hard-of-Hearing and Stakeholders in Every Phase of Project (12%)
- ◆ Technology Needs to be Able to Transfer to Workplace (8%)
- ◆ Seek More Funding to Implement Cyberinfrastructure (4%)

“Involve deaf and hard-of-hearing individuals in every level of this project as they know best what tools can best serve their needs.”

Verbatim Responses

What did you like most about this Summit?

Well organized, very collaborative effort.

To get a good sense of what the six constituency groups were thinking about the issues.

Since my work focuses on career development and counseling for people with an array of disabilities and life challenges, this was my first exposure to the remarkable world of cyber-tech for the deaf and hard of hearing. The opportunity to network with such brilliant and creative professionals – hearing and deaf/hard of hearing – was terrific. Gave me a lot of food for thought about applying this information to the workplace.

The fact that it brought all the stakeholders together and facilitated some very good discussions.

Interaction, brainstorming great ideas, positive advances in STEM education on various fronts . So wonderful to be a part of this exciting project.

I really enjoyed the discussion and exchange of ideas. It was interesting to hear about all the different perspectives that were addressed today and yesterday.

I am new to the deaf/hard of hearing domain, so for me it was interesting to get the exposure. Talking with other service providers and business people.

The quality and enthusiasm of all those attending. The honest and thorough sharing of ideas. Deaf/hard of hearing and hearing professionals working together.

Pre-conference work made it possible to really focus on issues in an organized way. Short term focus with clear goals. Applicability of information to other projects/future development.

The collegiality. Sharing information and opinions across a broad spectrum of practitioners.

Bringing together an interesting cross-section of people from diverse backgrounds both in educational settings and beyond.

Possible cyber accommodations within next 5-10 years.

It focuses on deaf/hard-of-hearing students in postsecondary education; my area of passion.

Important topic for us to be working on collaboratively. Task group was great.

Sharing with other ideas with deaf. Great access support. Good networking.

Well organized. Good job at soliciting and collecting ideas.

The information and open format and the smooth flow of discussion.

The opportunity to interface with other practitioners, with faculty, with students, and to receive input from deaf individuals. There is an assumption that hearing individuals don't care about the deaf perspective, when in reality, we are starved for it.

Opportunity to connect with others in related disciplines. Wide variety of perspectives and opportunity to respond to each other. High expectations and standards that were set. Leaving with specific list of recommendations.

Verbatim Responses (con't.)

The richness of the exchange at the Summit among the participants.

Getting the views of other stakeholders was very beneficial. Open discussions.

What are your suggestions for improving the Summit?

Identifying/discussing the goals and expected outcomes up front would have helped.

There was a bit too much redundancy in presentations on Day 1, but I am not sure what you could do about it.

Perhaps add representation by employers and secondary educators. Encouraging younger students to prepare for STEM-related disciplines seems critical (getting more youth into the pipeline); therefore the technologies being discussed certainly applies to K-12 educators.

I felt that some groups could have benefitted from some participation of individuals not present at the Summit – especially in STEM faculty, interpreters who have experience with STEM from RIT/NTID and Gallaudet. Need faculty that sometimes encounter deaf or hard-of-hearing students. Research and cyberinfrastructure groups lacked deaf members. Also, the student group could have been more diverse. Too many computer science students. STEM covers many disciplines. No one from biology, physics, or other STEM fields other than chemistry, psychology (and both are from or went to UW). There is a student at University of Minnesota getting his PhD in pharmacological sciences for example.

I understand time/financial/personal/etc. constraints and suspect there were many factors involved in the one long day. Thursday was too long. It was difficult to do what I thought was the most important part of this Summit (develop recommendations for final report) late at night after a full day of meetings.

A period of thorough discussion in person for the white paper presentation would have been extremely helpful (longer than 40 minutes, please). We weren't able to properly share our stories or ideas until after the presentation was complete. Also, I'm not sure that the cyberinfrastructure expert panel was helpful.

Possibly my group could have done a little more work in advance to prepare for the first day's presentation. I didn't feel completely prepared (Cyberinfrastructure).

More time to develop talking points as a group. Templates for recommendations would have been helpful. Because the panel faced the audience, it would have been helpful if a computer monitor was available showing what was on the screen.

Panel members – I was confused of which slide belongs to who.

It was a little unclear what the results/outcomes would be other than simply a written report. How much of it can actually be implemented?

Make it clear from the onset what “the end in mind” is (i.e., how will we use our work, who will carry on, etc.).

More hard of hearing involvement. Meeting times were too long. My eyes were exhausted by 4 p.m., and the meeting was scheduled to go until 9 p.m. - too long. What about involving NAD and HLAA reps? Avoid evening work. Working all day from 8:30 a.m. until 9 p.m. is too much, and tiring. I am not as effective in the evenings. But two days instead of three days are better.

Verbatim Responses (con't.)

Use the Wiki throughout the Summit – it's 2008. No need to iteratively publish updates to a static web site. Let everyone shape the documents together.

Have the groups continuing to meet! Perhaps more input from the hard-of-hearing community. A bit longer would be good. More time to work/research in our groups.

Do you have any additional specific recommendations for inclusion in the final Summit Reports?

Consider the fact that deaf/hard of hearing STEM students may participate in internships and other practicals with employers. Ultimately these students will seek professional opportunities. They (and their employers) will need access to these technologies. To what extent will technologies transfer to the workplace? STEM-related jobs are ever-evolving and demand frequent on-the-job continuing education.

Group facilitators should reach out to more stakeholders so they can have a more comprehensive report on issues.

Sitting and listening (or watching/reading) for long periods of time is very difficult. Involve deaf/hard-of-hearing individuals at every level of this project as they know best what tools can best serve their needs. But keep hearing stakeholders too, because that's also an important perspective.

No, our recommendations today were strong and hit the target head on.

The only possible missing constituents were academic administrators and hearing students. Their perspectives on our issues are of interest.

For workplace, hopefully to see integrated cyber mode of accommodations. Flexibility to choose which types of services to meet both internship/students and employers.

Distinguish between realistic and unrealistic possibilities in the timeframe we have. Will additional funding be sought to construct an actual cyberinfrastructure?

Publicize the work and recommendations (i.e., Chronicle of Higher Education or other publications to higher education and IT organizations). Summary PEPNet, AHEAD, and other sites.

I am frustrated that all discussions about where to host the web site for "x" is always answered with Gallaudet. Gallaudet is not a STEM-focused institution. RIT is, and would be a more logical choice.

N/A – much of our recommendations overlap others. Add more deaf professionals to each panel except for the student panel.

Involve stakeholders in research as partners, not just as subjects. We heard this again and again from interpreters and from deaf/hard-of-hearing individuals.

I think it's imperative for the community at large to stay "tuned in" to the emerging technologies. Too frequently as new technologies are created, "access compliance" is not considered.

Ensure that if interpreting is mentioned, speech-to-text services is mentioned as well (i.e., ASL/PSE/Signed English, word-for-word/meaning-to-meaning text transcriptions).

Verbatim Responses (con't.)

Please provide any additional comments.

The way in which this Summit was structured was excellent. Opportunity to work in small groups, then present as panels, inviting audience comments was productive and stimulating. Appreciated the refreshments, lunches, dinners, and breaks. Support people could not have been more helpful! Would like to particularly thank Mary Lamb for her assistance with travel arrangements. She was very responsive and pleasant. Thank you all. Sharon Bryant and I appreciate the invitation from the organizers, especially Dean Diaz-Herrera.

I thought that the student group should go first because this Summit was about them. Why place them last? The Summit should build on their comments and recommendations.

I'd like to continue involvement in this cyber-community once the Summit is over. We have a great group with so many wonderful ideas and the abilities to move STEM resources further. I hope we can continue this collaboration. Thank you for allowing me an opportunity to be a part of this work. Thanks you also to Mary Lamb for making all the travel arrangements.

I think we have a long way to go about achieving our goals in the Summit, but this is a great start. If you hold any future Summits, I'd like to attend (though maybe I'll be a faculty member by then!).

Allow more time for networking.

Great last minute "fix" for panelists to access the CART! Wonderful interpreting and captioning support. Jim did a terrific job of keeping us on schedule and moving us forward, while making us all feel that we were heard. Very stimulating and thought provoking!

Excellent support staff. Mary Lamb for President!!!

Terrific organization and implementation! Kudos to all!

This was a terrific generation of information and ideas. There were too many different interpreters over two days (there must have been at least 10-12) and they brought too much attention to themselves trying to control/set up communication. Need to just go with the flow and be flexible.

Brighter light on interpreter (next to slides).

Perhaps burritos were not the best meal choice! Very messy and made me feel uncomfortable! I felt that I would have been a better match on another committee. I didn't mind serving on my panel, but I am not sure I was the best fit for this specific panel. I am not an interpreter and I was assigned to the interpreter/captioner group. I felt that I would have been a better match for the researcher's group since I am a researcher and developer and have background in ASL Linguistic, etc. And , I am deaf too. I really enjoyed this meeting. Thank you for including me.

Thank you for providing this opportunity.

Thank you for gathering this group of professionals together.

Hopefully the final Summit reports will be shared with us for final feedback before submitting to NSF. More deaf representation in all groups is needed (except students). It would be great to begin together as a task force to work together in implementing the recommendations and meet together a few days a year to work on the implementation of the reports. Higher room temperature – too cold!

