

510b Converses with Students Webinars (Contributed Papers Session II)

Converses with Students Webinars

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Abstract

The U.S. Environmental Protection Agency Regional Science Council (RSC) Converses with Students Earth Day webinars were developed to promote the value of science to classrooms via webinar format. In 2012, the second year of the project the U.S EPA Region 6 Library (R6 Library) collaborated with the RSC to produce Converses with Students webinar on how to prepare a science fair project. The webinar format provided specific examples on how to incorporate the following within a science fair project: STEM (Science, Engineering, Math, and Engineering) topics, the 3 R's (Reduce, Reuse & Recycle), and sustainability.

The R6 Library identified outreach publications matching webinar content and delivered them to participating classrooms. This encouraged student engagement and allowed us to track project participation. Through the collaboration of the RSC and the R6 Library the Converses with Students webinar project demonstrated how library resources and services can be used to enhance the mission of the organization.

Introduction

One of the goals of the Regional Science Council (RSC) is promoting the value of science education. To supplement the science fair judging and classroom speaker project, the United States Environmental Protection Agency Regional Science Council (RSC) Converses with Students Earth Day webinars were developed to promote the value of science to classrooms via the webinar format.

In 2012, the second year of the project the United States Environmental Protection Agency Region 6 Library (R6 Library) collaborated with the RSC to produce Converses with Elementary Students webinar on how to prepare a science fair project. The webinar provided specific examples on how to incorporate the following within a science fair project: STEM (Science, Engineering, Math, and Engineering) topics, the 3 R's (Reduce, Reuse & Recycle), and sustainability.

About the U.S EPA Region 6 Library (R6 Lib)

The Environmental Protection Agency Region 6 Library is a part of the EPA Library Network. The R6 Library and the EPA Library Network were established in 1971. The Region 6 Library supports EPA staff and citizens in Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and 66 Indian Tribes. The R6 Library is based in Dallas Texas.

The R6 Library is staffed by a full time professional contract librarian during operating hours. The current contracting company is Document Systems Incorporated.

Library clients include the Region 6 office and satellite offices staff, other EPA Libraries, state partners, tribal partners, and the public. Clients may submit reference, research, alert, information, and document requests in person, by telephone, fax, email, text, and mail. Every effort is made to deliver requested documents in the recipient's preferred format.

There is a small print collection of legal, scientific, and technical reference materials available onsite. Select state and federal government publications are also available onsite, although increasingly these are being made available online. Clients may review and make copies of library materials for personal use at no additional cost during their visit to the library. Public clients may also contact their local public, state, or university libraries to process their requests through Interlibrary Loan.

The R6 Library maintains a collection of EPA outreach publications and is one point of contact for ordering these free publications in bulk quantities for events. Library staff also maintains a list of some of the more popular EPA outreach publications.

About U.S. EPA Regional Science Council (RSC)

The Regional Science Council (RSC) is part of a network of RSCs across EPA regions. It is a science forum open to all Regional scientists and engineers that focuses on strengthening the use of science to address the environmental priorities in Region 6. Its membership consists of assigned representatives from each Division and other interested staff. The Council works to enhance the quality of science performed in the Region through leveraging science resources available to the Region, promoting science advances, increasing science communication, and improving science knowledge and expertise available to Region 6 staff.

Roles of the Regional Science Council

- Provides access to Office of Research and Development (ORD) and Program Office science resources & funding;
- Assists in regional research or applied science projects;
- Improves science communication across EPA Region 6 Divisions;
- Identifies and monitors emerging cross-divisional science issues;
- Hosts science conferences, seminars and training; and
- Works with staff to develop opportunities for scientific career development.

From: <http://www.epa.gov/region6/rsc/index.html>

Converses with Students Project Overview

The RSC Converses with Students webinars were developed to promote the value of science to classrooms via webinar format. The webinar format allowed us to reach out to many more classrooms than we would be able to using a traditional classroom speaker format while delivering the same scientific and technical content.

The disadvantage was that participant interaction was not allowed with the technology used the first and second year. Future participant interaction issues may be resolved with new technologies and our partnership with NASA and the Perot Museum of Nature and Science.

The first year the webinar audience was elementary students. The webinar focused on the major statutes governing EPA regulations. The Environmental Management Systems program in Region 6 was also introduced. To help personalize the presentation, brief speaker introductions with their educational backgrounds were included.

Our goals were to reinforce with students the importance of staying in school, to get an education that will enable them to make better choices for their future and to enhance students' knowledge of their surrounding environment while reinforcing STEM (Science, Engineering, Math, and Engineering) topics.

Library staff was involved the Converses with Students first year as a RSC member and reviewer of the presentation content. Through this introduction to the project, Library staff became aware of how the R6 Library resources and services could enhance the Converses with Students project in future years.

In 2012, the Converses with Students project was expanded to offer a sessions for university students as well as elementary students. To demonstrate this value, Library staff volunteered to be a presenter for the Converses with Students project for elementary students.

Synergies

As both the RSC and the R6 Library had outreach to students in their mission statements, Library staff recognized that by working together better results may be achieved. And if better results were not achieved, then certainly, better allocation of resources would be a positive outcome.

From planning content to tracking results, Library resources and services were of value to the RSC and the Converses with Students project.

When planning for participating schools, both the RSC and the Library had lists of schools from previous contacts and events. However both groups were always looking for more contacts and addresses. Library resources included databases such as Dun & Bradstreet and Reference USA to provide addresses and contacts for schools at all levels. Library staff performed searches to generate Excel spreadsheets of schools within the Region 6 states. The spreadsheets were delivered to the education coordinator for the RSC. The members of the RSC would then use the spreadsheet content information to send flyers and other marketing information in advance of events. This information added to the school contacts the RSC and the R6 Library had used in the past.

Secondly, when planning content for the presentation, the decision to center the Library staff elementary school presentation on how to do a science project was based on several factors: the number of local schools that have science fairs each and every year; the perceived need as determined by the number of questions received from the public by the Library; and the publication of a new version of the "Science Fair Fun" publication by the EPA. Also, the standard scientific method outlined in the science fair presentation will stand the test of time and be of value for the intended audience for many years.

The content for the sustainability theme was introduced by Library staff to participants through age appropriate concepts outlined the EPA publication "Reduce. Reuse. Recycle. Practice the 3Rs Inside and Out."

Library staff identified and ordered EPA outreach publications matching the sustainability and science project theme. These publications were then distributed to participating teachers and students in advance of the live webinars. Having the publication in hand enhanced teacher engagement and participant learning. And it also allowed us to more accurately track the number of schools and participants. The EPA publication "The Quest for Less Activities and Resources for Teaching K-8" was sent to all participating teachers.

Library staff created an Excel spreadsheet to track participant contact information, grade level, number of students at each location, and name and number of publications distributed. This is shown in Appendix B. This documentation will be used for future webinar planning and helped demonstrate the value of the Converses with Students project to Library and EPA management.

In an effort to document additional information from participants for tracking purposes and combine the EPA outreach publication request a new webinar form was created for use in 2013. This form is included as Appendix C.

Library staff resolved and/or obtained permission to use images used in the Library webinar presentations. EPA and in-house created images were used whenever possible to avoid potential copyright issues.

There were also benefits for the Library staff by partnering with the RSC. Schools would often contact the Library for a speaker and the solo librarian could not always leave the Library unstaffed or provide the level of technical expertise necessary. By partnering with the 100+ member RSC, there was usually a RSC member available to fulfill all outreach requests.

Upon completion of the live broadcasts, each session was recorded for posting on the RSC Facebook™ site. This enhanced our ability to reach additional clients who may not have been able to log in on the live broadcast dates.

The Camtasia video equipment and software used to videotape the presentations for Facebook™ was borrowed through an RSC member division. By sharing the Camtasia video equipment and software the organization and the R6 Library benefited from better resource allocation.

Lastly, by joining forces, we feel we reduced potential confusion for the school contacts by having one outreach contact from EPA Region 6.

Lessons Learned

Practice, there was no such thing as too much practice with regard to preparing for a live presentation. The RSC review process includes an internal peer review and as well as a review by the Region 6 External Affairs Group.

Incorporating dialog style into the presentation made the presentations more engaging to the participants. Questions and answers sessions between the speakers also proved to be an effective and engaging means to communicate the desired information, however this means joint practice sessions are needed. Preparation was needed to review the content to anticipate possible participant questions and prepare answers. Age appropriate language and terminology was also a concern. While not wanting to talk down to anyone, we did not want to lose our audience or provide misinformation.

Reinforcing the concepts discussed by using real world examples. In the science project experiment this was accomplished with through use of a real science experiment using that testing growing mushrooms in oil.

Documenting outcomes/results and time spent was important to convey the value of the project to RSC and Library management. As the project progressed it became necessary to collect more data on the number of participants, services provided, and time spent.

Sensitivity to organizational limitations (your organization, partners, and the schools) was also critical. Not all schools have the same technical capabilities, organizational priorities may change, and personnel may change. Project timelines need to be flexible to accommodate contingencies.

Summary

The Region 6 Regional Science Council Converses with Students webinars were developed to promote the value of science to classrooms via webinar format. The webinar format allowed us to reach out to many more classrooms than we would be able to using a traditional classroom speaker format while delivering the same scientific and technical content. In 2012, the second year of the project the Region 6

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The Converses with Students Earth Day webinars continued on in 2013 as web casts with a partnership with NASA and the Perot Museum of Nature and Science.

References

Cavanagh, S. (2009). Web Connects K-12 Students With Scientists. *Education Week*, 29(11), 1-13.

Hilliard, J. and Huggett, C. (2011) Moving to the Virtual Classroom. ATSD Presentation. Link to current presentation: <http://cammybean.kineo.com/2012/01/moving-to-virtual-classroom-trainers.html>

Liu, M. (2011). A study of learning and motivation in a new media enriched environment for middle school science. *Educational Technology Research & Development*, 59(2), 249-265.

Oomen-Early, J. (2008). Burnout and Online Instruction: 10 Tips to Revive Your E-Classroom and Yourself, Part 1. *Online Classroom*, 7-8.

Smithsonian Provides Digital Lessons on Water Conservation. (2012). *T H E Journal*, 39(2), 10.

United States Environmental Protection Agency. EPA Web Training. Available at: http://www.epa.gov/webtraining/webconference_howto.html Accessed on 02/28/2013.

Urven, L. (2000). Presenting Science in a Video-Delivered, Web-Based Format. *Journal Of College Science Teaching*, 30(3), 172.

Appendices

Appendix 1 URLS

- EPA Library Network <http://www.epa.gov/libraries/>
- Region 6 Library <http://www.epa.gov/libraries/region6.html>
- Region 6 Regional Science Council <http://www.epa.gov/region6/rsc/index.html>
- Converses with Students Web Casts <http://www.epa.gov/region6/rsc/webinars.html>
- Regional Science Council Facebook Web Cast Videos
<http://www.facebook.com/media/set/?set=vb.139943828917&type=2>
- National Service Center for Environmental Publications (NSCEP) <http://www.epa.gov/nscep/>

Appendix 2

Tracking spreadsheet headings

1	Publication Distribution Tracking (YEAR)									
2										
3	School Name	Contact Name	Street Address	City	State	Zip	Grade	Publication Name	Publication Number	Quantity

Appendix 3

2013 Webcast sign up form

The NASA / EPA Region 6 Regional Science Council Earth Day Climate Change web casts are scheduled for April 3 and 17, 2013 from 11:00 am to Noon CST.

Registration:

All those interested in participating are encouraged to register, so that you receive periodic updates about the climate change web cast. We encourage teachers, broadcasters, federal agency representatives, home schoolers, volunteers, and others to register.

Please fill out the form as best as you can or put 0 into the fields (for school enrollment and number of schools in district, for example) if you do not have that information or if it does not apply to you.

Contact Information:

First Name:	
Last Name:	
Position/Title:	
Email:	
Email Alternate:	
Telephone:	Alternate Telephone:

School Information:

Grade Level:	
How many students will participate?	
# at the live broadcast	
April 3, 2013 11:00 AM	
April 17, 2013. 11:00 AM	

# live broadcast – not sure which date	
# taped broadcast by school replay later	
# view taped version on Facebook™	
School Name:	
School Mailing Address:	
School Enrollment:	
School District:	
# of Schools in the School District	

Web cast information:

How will you receive our program? *Participation in this NASA Digital Learning Network event is made possible through two connection methods.*

Videoconferencing

Standards based (H.323) interactive videoconferencing. This method utilizes primarily videoconference appliances (CODEC's) such as Tandberg, Polycom, Lifesize, and Sony. This is two-way video and audio communication. You see and hear our content and we hear and see your content (responses, questions, and comments). This method delivers the best quality back and forth communication.

Web conference type videoconferencing

This method utilizes a web-camera, microphone(s), computer monitor (or external projection device) and speaker(s). For this event the ONLY way to connect is through Conference Me which is only available for PC's it will not work with MAC.

Instructions follow:

Procedures for establishing Conference Me connections

For Web based Videoconferences

ConferenceMe is only available for PC's, not MAC (Macintosh) computers.

From your computer browser (PC only – recommend Internet Explorer) simply enter the IP Address - **128.157.7.108** and hit "enter" which will connect you to the NASA DLN bridge.

Directly under the large Codian logo on the top left, click on "Conferences", which is the 3rd selection from the left. This will bring up all of the "Active Conferences" that are currently on the bridge.

Under "Name", find "**1 Test**" and Click on the *blue* highlighted "**ConferenceMe**" link next to your

Conference.

If you have connected with us before using ConferenceMe on that specific computer, simply click on [Click here to join the conference using ConferenceMe](#) to join the conference.

If you have never used ConferenceMe before, please click on the [click here to install](#) link to install software that will allow you to connect to our bridge and join you NASA DLN event.

For those installing the software for the first time on that specific computer, a File Download window will pop up. Simply click Run to execute this File Download to install the TANDBERG / Codian software.

Follow prompts with the Setup Wizard to complete installation of software.

Once installation is complete you can join the conference by clicking on [Click here to join the conference using ConferenceMe](#) to join the conference.

You should now be in the conference!! Please review the option buttons in the lower left of the Conference Me window. These will help you optimize your view for the educational event and adjust the various settings . Options include - Full Screen, Next Local Layout (*4 to choose from*), Next Participant, Send Desktop, Muting Outgoing Video, and Muting Outgoing Audio.

NOTE: If you are able to mute your audio when the students are not asking or answering any questions, this would be extremely helpful to us during these ConferenceMe connections.

When the conference is complete simply close the TANDBERG ConferenceMe window by clicking on the x in the upper right part of the screen and close out the Codian bridge website as well by clicking on the x in the upper right part of the screen.

Web cast	
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Environmental Education:

Educator Professional Development Opportunity

Prior to the web cast a team from EPA and NASA may be traveling to select schools in the Dallas and Houston geographical area. If you are interested in having them visit your school, please complete this section.

First Name:

Last Name:

Position/Title:

Email:

Email Alternate:

Telephone:	Alternate Telephone:
Grade Level:	
School Name:	
School Mailing Address:	
School Enrollment:	
School District:	
# of Schools in the School District	

Several age and topic appropriate U.S. Environmental Protection Agency outreach publications are available from the Region 6 Library and the National Service Center for Environmental Publications. These publications are available to students on-site and may be sent upon request to participating schools. All we need is your complete mailing address. Delivery from the National Center for Environmental Publications generally takes four to six weeks.

EPA Publication # and Title	Quantity Requested
EPA 530-K-00-001 <i>Trash and climate change: Planet Protectors discover the hidden reasons to reduce, reuse, and recycle.</i>	
EPA 30K10001 <i>Reduce, Reuse. Recycle. Practice the 3 Rs inside and out.</i>	
EPA 100K04001 <i>Live, Learn. Play: Tune in to your health and your environment.</i>	
EPA 530K07002 <i>Tools to reduce waste in schools.</i>	
EPA 530K06003 <i>Make a difference in your school: A how-to guide for engaging students in resource conservation and waste reduction.</i>	