

## **Final Report for the COSEE:CGOM Summer Online Institute**

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### **Executive Summary**

The summer of 2009 marked the seventh summer online institute conducted by the Center for Ocean Sciences Excellence: Central Gulf of Mexico (COSEE:CGOM). Overall, it was very successful, with both state locations having a statistically significant increases in their post test scores over pre-test scores ( $t_{Louisiana}(7) = 5.25, p <.001$ ;  $t_{Alabama}(12) = 4.42, p <.001$ ;  $t_{overall}(20) = 6.63, p <.000$ ). Post content survey results indicate that the “Environmental Stewardship” presentation by Dr. Mike Spranger and the “Introduction to the Gulf of Mexico” presentation by Dr. Jessica Kastler were the highest rated, with Dr. Kastler’s presentation receiving the most interaction between the scientists and the teachers and between the teachers themselves.

This year marked the very first time in seven years that every participant noted they interacted with the scientists, staff and each other. This can be directly linked to the course being delivered within the Moodle Learning Management System that has a specific section set aside for discussion boards for such interaction. There were some issues that were related to this interaction; however, with participants complaining that one scientist never signed on to answer questions about his presentation, leaving participants to have questions answered by center staff or each other.

As with previous years, many comments were made about the amount of work and timeframe for the institute. Some believe that all interaction should be stripped from the institute and only lesson plans be required. Others believe that interaction is ok, but that the lesson plans should be eliminated or reduced to one a week. As a whole, the comments are from a minority of participants, and are similar to what has been made in the past few years of the institute. While some of their suggestions are worth discussion, such as how individual lesson discussion questions are formatted and their requirements, most of this discourse can be attributed to individuals wanting to get away with as minimal work as possible.

Technical problems were greatly reduced this year, but there were some issues that made it into the comment section of the post content survey. Most of these issues were resolved quickly, but some are going to have to be addressed by revising the online institute guide that is given to participants. Others may need to be brought up at a later meeting, as they relate to how we as a staff present the institute to the teacher interested in the professional development program.

Finally, some suggestions were made about how to improve the institute going forward. This includes adding additional multimedia elements (such as audio narration for every presentation), specific requirements for scientists and requirements for how discussion questions are formatted and the discussion board is monitored.



## Introduction

The Summer Online Institute took place from Monday, July 6<sup>th</sup>, 2009 though Friday, July 24<sup>th</sup>, 2009. Six presentations were offered, which included:

- An Introduction to the Gulf of Mexico by Jessica Kastler;
- Improved Coastal Resiliency Through the Use of Storm Surge Visualization by Joe Swaykos;
- Oyster Reef and Estuarine Landscape Restoration by Ken Heck; Marine Ecosystems by Mike Carron;
- Water Quality Issues Around the GOM by Andrew Barron; and
- Environmental Stewardship by Mike Spranger.

Participants from Louisiana and Alabama were enrolled in the course with eight (8) teachers from LA and thirteen (13) teachers from AL.

During the institute, teachers were presented with two lessons a week for three weeks. Each presentation featured:

- a slideshow with notes;
- a discussion section for questions, comments and interaction with other teachers and the scientist;
- additional resources such as videos, news articles, journal articles and glossaries;
- four short-answer questions based upon the lesson material; and
- a place to upload a lesson plan based upon the featured presentation.

A major component of this online institute was the development of lesson plans based upon the material presented. These lesson plans were reviewed by COSEE:CGOM personnel, and during the coming year, the best of the best will be included in our lesson plan database, which is available to all teachers across the globe to help them in developing ocean learning material for their students.

In order to meet the necessary requirements of the program, participants were to sign in to the Moodle Learning Management System (LMS) via the COSEE:CGOM website and view each of the presentation's slideshows and any additional supplementary materials. They were then asked to answer three (3) to four (4) discussion questions based on this material and to post and reply at least three (3) times to a discussion board that was to be monitored by scientists and COSEE:CGOM staff. A space was provided for the upload of the required lesson plan for each presentation; however, to address the comments of participants in the past, an alternative was given this year to replace up to two (2) of the lesson plans with the development of twenty (20) properly referenced ocean science messages for the Ocean Hall exhibit in Washington, D.C. A pre and post test was also to be completed as well as a final post-institute survey, whose results will be presented in this report.

## Pre-Post Test Results

To analyze the results of the pre and post tests in Louisiana, Alabama and as an overall program, a paired-sample T-test was performed on the resulting data. In Louisiana, the mean pretest score was found to be 42.79 out of a possible 100 points, with a standard deviation of 12.73 (Table 1). Post test scores were found to average 73.55, with a standard deviation of 12.08 (Table 2). In all

cases throughout this report, the graphical spreads of results are shown to address any standard deviation questions.

Table 1. Mean Pre-Test Scores for LA

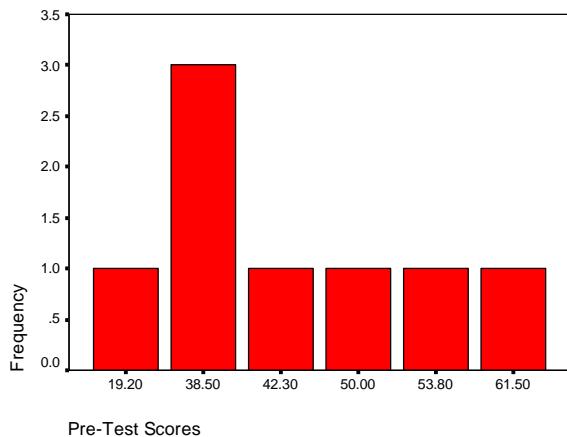
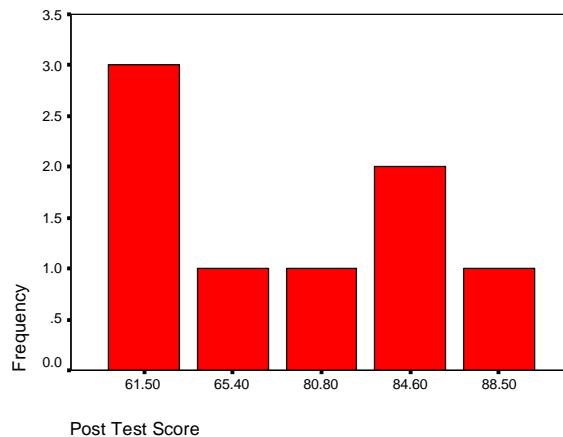


Table 2. Mean Post Test Scores for LA



The mean change in Louisiana was found to be an increase of 30.76 points (Table 3), with a standard deviation of 16.56, which was found to be a statistically significant increase at the alpha level of .001 ( $t(7) = 5.253$ ,  $\alpha = .001$ ). Although this is a large standard deviation, of note is that the highest pre-test score became the lowest post-test score, indicating a positive change.

Table 3. Paired Samples T-Test for LA

	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
POSTTEST - PRETEST	30.7625	16.56493	5.85659	5.253	7	.001

In Alabama, the mean pretest score was found to be 48.82 out of a possible 100 points, with a standard deviation of 12.01 (Table 4). Post test scores were found to average 73.08, with a standard deviation of 13.43 (Table 5).

Table 4. Mean Pre-Test Scores for AL

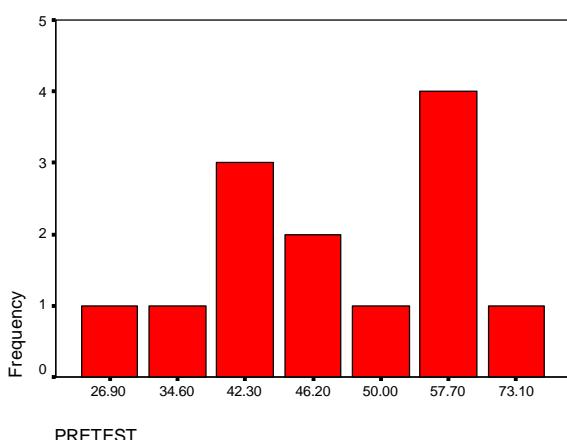
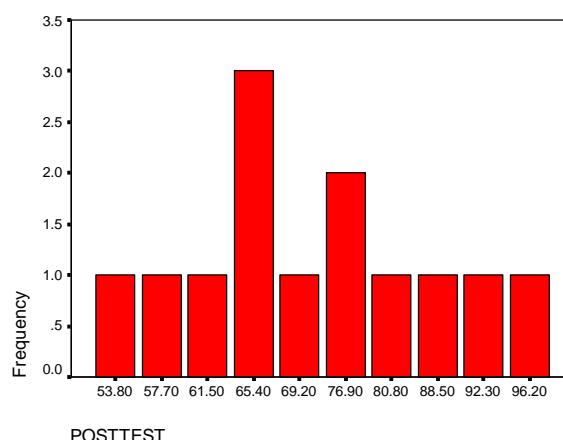


Table 5. Mean Post Test Scores for AL



The mean change in Alabama was found to be an increase of 24.25 points (Table 6), with a standard deviation of 19.78, which was found to be a statistically significant increase at the alpha level of .001 ( $t(12) = 4.420$ ,  $\alpha = .001$ ). In Alabama, the standard deviations were larger than in Louisiana because one teacher scored rather high on the pre-test. Still, when this score is removed, the highest pre-test score of 57.70% became the second to the lowest post-test score, indicating a positive change.

Table 6. Paired Samples T-Test for AL

	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
POSTTEST – PRETEST	24.2538	19.78272	5.48674	4.420	12	.001

When combining the results in Louisiana and Alabama, the mean pretest score was found to be 46.52 out of a possible 100 points, with a standard deviation of 12.34. Post test scores were found to average 73.26, with a standard deviation of 12.63 (Table 7).

Table 7. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
POSTTEST	73.2571	21	12.62591	2.75520
PRETEST	46.5238	21	12.34078	2.69298

The mean change in Louisiana and Alabama was found to be an increase of 26.73 points (Table 8), with a standard deviation of 18.48, which was found to be a statistically significant increase at the alpha level of .001 ( $t(20) = 6.631$ ,  $\alpha = .000$ ).

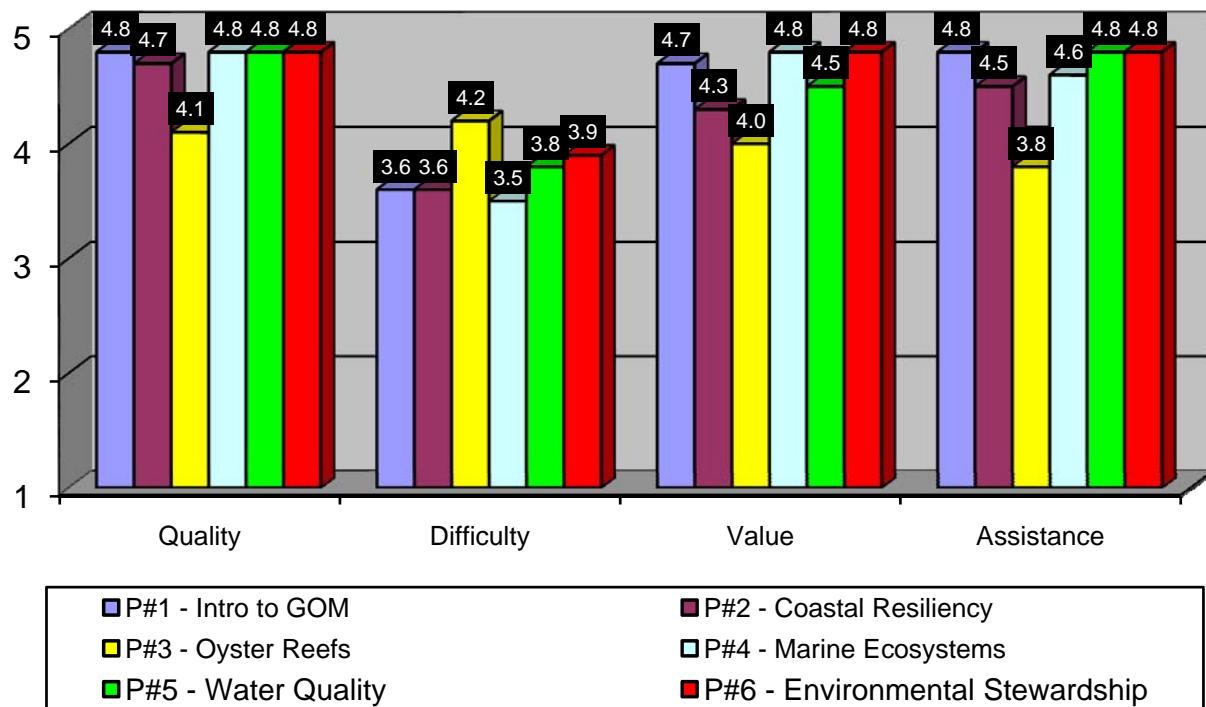
Table 8. Paired Samples T-Test for LA and AL

	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
POSTTEST – PRETEST	26.7333	18.47545	4.03167	6.631	20	1.85e-06

## Post Institute Survey Results

Of the twenty-one (21) participants in the Summer Online Institute, twenty (20) completed the anonymous post institute survey. The first section of the survey asked participants to rank the quality of the content, difficulty of the content, value of the content to as an educator, and value of the facilitator's assistance on a scale from 1 (poor) to 5 (excellent). These results are detailed in Table 9. As shown, five (5) of the six (6) presentations were ranked at or close to a five (5) on the quality of content, value of the content to as an educator, and value of the facilitator's assistance. The exception was the presentation by Dr. Ken Heck, "Oyster reef and Estuarine Landscape Restoration". This was consistently the lowest ranked presentation between a 3 (fair) to 4 (good). This was also ranked the hardest presentation as well. It is surmised that this result is indicative of the fact that Dr. Heck never responded, nor participated, in the discussion section for his presentation, thus many questions had to be answered by staff or fellow teacher participants. This will be detailed further later in the report.

Table 9. Individual Rankings for Presentations



Participants were also asked to give an overall ranking for each of the presentations in the summer institute, again on a scale from 1 to 5 (Table 10). As in Table 9, five (5) of the six (6) presentations were given a ranking from 4 to 5, giving an average rating of 4.5 or higher. Presentation 3 received the lowest marks, which spanned from 3 to 4, and averaged at a 3.97.

Table 10. Overall Rankings for Presentations

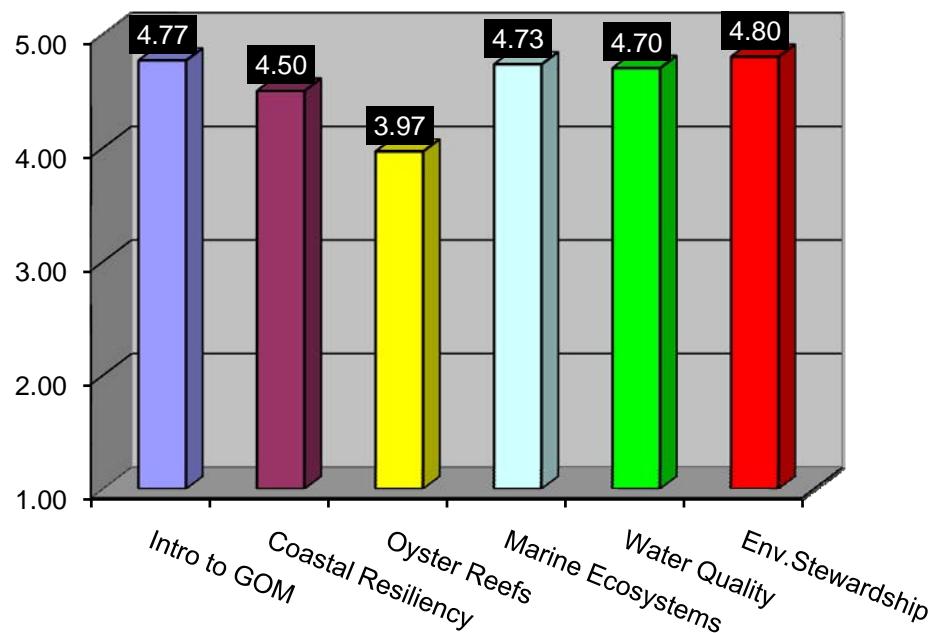


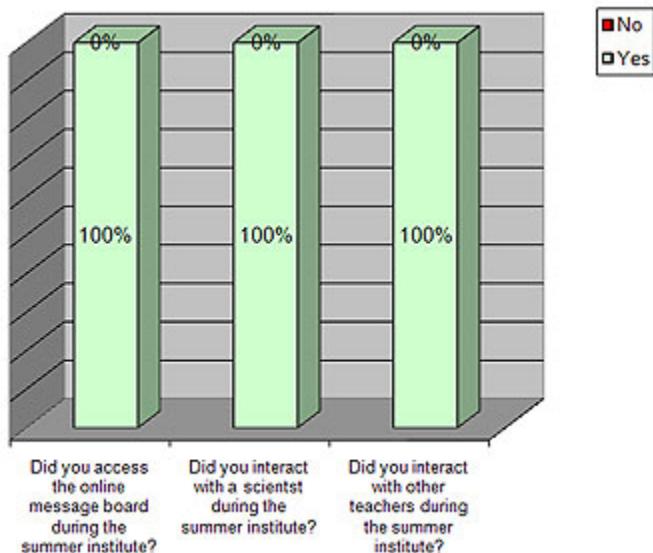
Table 11. Technical Survey Results

For each of the following questions, "yes" or "no" was the answer.	YES	NO
Did you experience technical problems with the online institute?	45%	55%
If "yes", was this due to:		
Internet connection	21%	
Software problems	14%	
Computer hardware problems	14%	
Other	51%	
Were you able to adequately access the material in the online institute?	95%	5%
If "no", was this due to:		
Internet connection	0%	
Software problems	0%	
Computer hardware problems	0%	
Other	100%	

As can be seen above, there were a number of technical issues that occurred with the institute. Dr. McCann worked with each of the participants involved, and most issues were resolved in the first day of the institute, and required nothing more than software updates and minor internet setting adjustments. This is backed up by the second question which noted that 95% of participants were able to adequately access the material during the online institute. Only two (2) participants replied no, and stated that this was because they were travelling or had family issues that prevented them from being able to participate fully. Thus, no fault was placed on the institute or their software/hardware.

The next section of the report asked the participants how interactive they were within the online institute (Table 12). It is interesting to note they every participant noted they interacted with each other and with scientists as well as through the message board on the Moodle system. This is the first year that this has occurred.

Table 12. Interaction Survey Results



In Table 13, the results of the discussion board for the various presentations is presented. The “# of strands” column notes the number of unique questions that were brought up for discussion. Participants were asked to post at least two (2) questions/comments/observations for each lesson and then respond to one (1) another. This would yield, at the minimum, 63 posts with 21 participants if they did indeed do this. As you can see from Table 13, in the “Participant’s Posts” column, the institute was successful, with far more than the minimum number of posts recorded, and the discussions continued with pretty good frequency all the way to the end. The next two columns note the number of times the scientists replied, the number of times the staff replied, and the combination of these two results. If the number of posts by the scientists equals the number of strands, then it can be inferred that the scientists replied to at least every question. Note that on the “Oyster Reefs” Presentation, the scientist never signed on to respond, but the staff did make comments to participants.

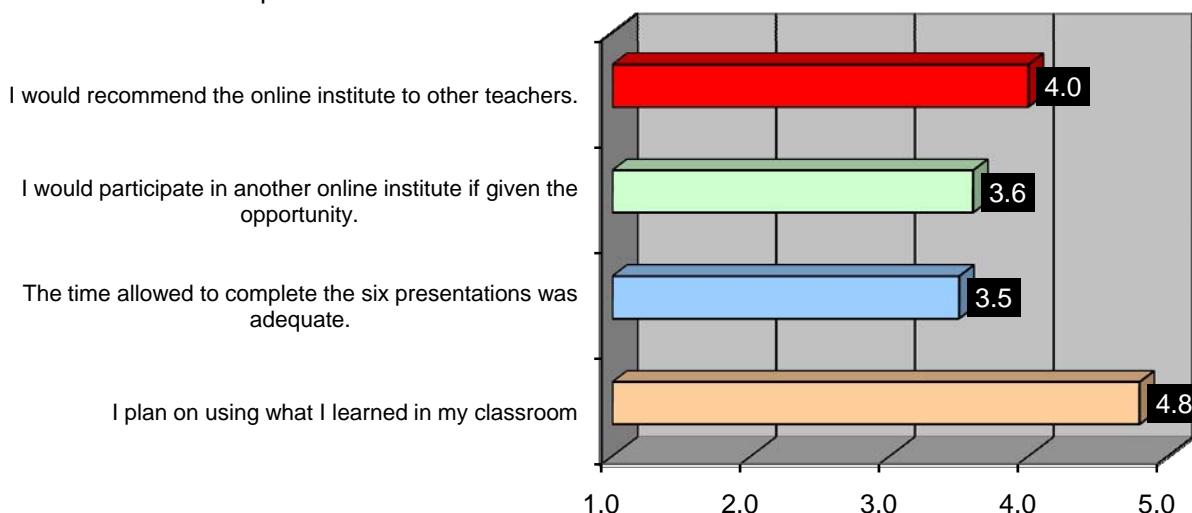
The last two columns detail the teacher to thread ratio and the scientist + staff to thread ratio. This is calculated by dividing the number of posts for each of the groups by the number of strands. If the teacher to thread ratio is greater than the scientist + staff to thread ratio, then it can be inferred that the teachers drove discussion on the presentation. The opposite is also true. Using this calculation, the teachers drove the discussion for the “Oyster Reef”, “Marine Ecosystems”, and Environmental Stewardship” presentations, and the scientists drove the discussion for the remaining presentations. Overall, you can see the richest scientist/teacher interaction occurred with the “Introduction to the Gulf of Mexico” presentation.

Table 13. Discussion Board Statistics

	# of Strands	Participant's Posts	Scientist's Posts	Staff's Comments	Scientist's + Staff's Comments	Teacher / Thread Ratio	Scientist + Staff / Thread Ratio
<b>Intro to GOM</b>	25	108	29	110	139	4.3	5.6
<b>Coastal Resiliency</b>	24	92	15	86	101	3.8	4.2
<b>Oyster Reefs</b>	25	93	0	61	61	3.7	2.4
<b>Marine Ecosystems</b>	35	125	14	67	81	3.6	2.3
<b>Water Quality</b>	34	96	44	77	121	2.8	3.6
<b>Env. Stewardship</b>	25	83	51	30	81	3.3	3.2

The next four questions and their results follow in Table 14. As shown, participants ranked with a score of 4 (I agree) with the recommendation of the institute to other teachers and that they plan on using what they learned in the classroom. The participants ranked an average of 3.5 (neither agree nor disagree / I agree) that they would participate in another institute and that the time allowed as adequate to complete the institute.

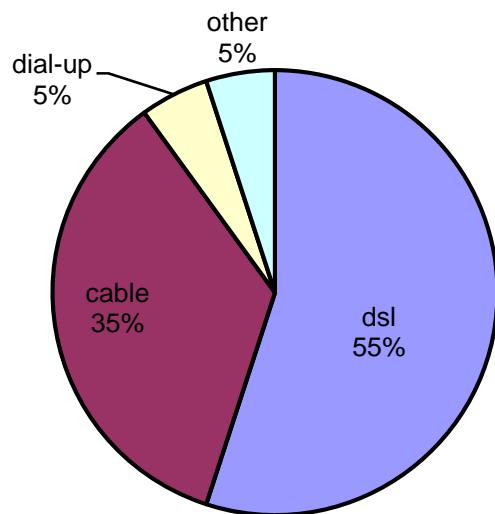
Table 14. Additional Impressions of the Institute



### Technology Enhancement Suggestions

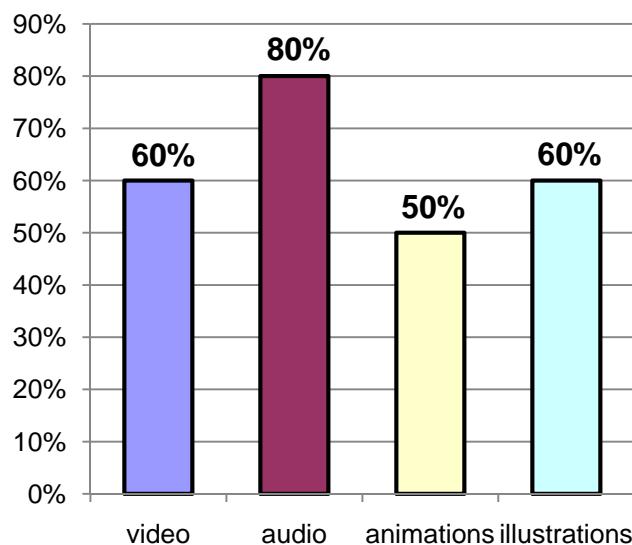
Participants were asked two questions in relation to the technology that is used in the Online Institute. Because much of the material used for the course requires a fast internet connection (due to the use of videos and large PowerPoint file downloads for example), we suggest that the participants have access to at least a DSL or cable internet connection, whether that is at home or at another location such as a school or library. According to the results of this question (Table 15), 95% of participants were able to access course materials utilizing a sufficient internet speed. 55% noted that they used DSL, 35% reported they used a cable modem, and 5% said they used other means, such as a connection at the library or at school. Only 5% noted they were still using a dial-up connection (which represents one participant).

Table 15. Type of Internet Connection Used During the Online Institute



When asked what types of media (Table 16) would they like to see future courses make use of, 60% indicated they would like to see more video used. However, it should be noted for future development, that if the link is in YouTube, that there should be a download link or an alternate source for the file since many schools block this service. 80% of participants suggested that more audio be offered. This is backed up in the next section where an overwhelming majority of participants have asked that all presentations in the future have, at the minimum, audio narration attached. Finally, 50% of participants asked for more animations and 60% suggested that more illustrations be included in future development.

Table 16. Suggested Types of Media to be Utilized in Future Courses



### **Additional Comments, Suggestions and Recommendations**

Participants were finally asked to leave any suggestions they might have for improvement of the summer online institute, and if they had any additional comments. These have been broken down into themes to expand upon.

#### *Amount of Work*

Several participants made comments about the amount of work required and the timeframe given for the summer online institute (Table 17). This is a common response that has come up every year since 2003. This year, one participant was emphatic that the timeline given to complete the materials was unrealistic and was far too much to teachers to handle in a three-week period. Indeed, this person believed that the number of lesson plans required drained all his “creative juices” and he did not even try on the post test. The flip side is that the individual said he did learn a lot and will be sharing the resources with fellow teachers.

Another commenter related to the first noted that they found they were working far more time than three hours per presentation. It is unclear where they got this number from, as Drs. McCann and Brook never mentioned that it would take 3 hours or less per presentation. They felt like they were spending too much time on the interaction section with the scientist and teachers and

just wanted to do the lesson plans and be done. It should be pointed out, however, that as a requirement of COSEE is to enhance the interaction between scientists and educators, the discussion section is crucial, thus removing this or reducing its importance would be a detriment to the institute goals as a whole. As with commenter one, they felt that there were too many lesson plans required and that doing this in the middle of the summer was too demanding on teachers.

Another suggestion was to provide a less broad series of topics, and lengthen the time of the institute. A related comment noted that they work full time in the summer and they would have liked to have had more time to complete the institute. A second suggestion was, if the number of lessons were kept at the current rate, that one lesson plan be required for one lesson that would have no interaction with scientists through discussion and the second presentation have the interaction but no lesson plan. As with the previous two paragraphs, the authors believe that reducing or removing interaction would be detrimental to the institute. We have already decreased the number of presentations from the first year the program was offered in 2003, and we have offered an alternative to developing a lesson plan as well. Thus, it is believed that we have made good faith efforts to address these issues already.

The final comment also stated they felt like the institute was far too much work to do in a summer period, and they felt like they were unprepared for the institute. It is true that due to technical issues on Dr. McCann's end in Alabama and on Dr. Kastler's end in Louisiana the orientation sessions were a bit more disorganized than in the past; however, each participant was given a detailed instruction sheet and had plenty of opportunities to ask questions of the staff concerning the institute. The only suggestions the authors could provide would be to possibly look at addressing the description of the institute on the homepage for COSEE:CGOM to more accurately reflect what is required and the timeline for the institute.

Table 17. Suggestions for Improvement of the Summer Institute – Amount of Work

The timeline that you give to complete the online portion of COSEE is UNREALISTIC! And, the lessons could be way more focused, cohesive, and digestible. These presentations all have a common thread that should have been more clearly interwoven. I wanted to give this my full effort. But, it was too time consuming. I was so drained by the time that I got to lesson plans, my creative juices would not flow (and quite frankly I half assed it...just to be done). And sorry, I did not try my hardest on the post test either. BUT, I learned so much cool stuff! And, it will be used in my classroom as long as I teach. And, I will share what I learned, materials, and websites with every Science teacher who will listen. I will share my COSEE experience with other teachers. But, I will be completely honest about the unrealistic timelines. I would do it all over again. Best wishes to COSEE! And, all my love!

I found that I spent significantly more than 3 hours working on each presentation. A lot of time I spent reading through and participating in the discussion threads. I felt that this used up a lot of quality time that I could have/should have spent working on my lesson plans. While I thought the discussion threads were interesting and useful, I found they took me away from the goal at hand - producing quality lesson plans. Instead, I would suggest participation in the discussion threads be conducted at the end of the summer session or at the end of each week, after lesson plans have been submitted and before the next weeks presentations begin. Or, allow more time before lesson plans are due. Having two presentations/discussion/lesson plans due each week, in the middle of the summer, was incredibly demanding. In the future I think that the amount of on-line work required should be more clearly presented and/or articulated in the application or face-to-face institute.

Provide a less broad series of topics over such a short period of time. It is difficult for me to remember many of the test questions as there were so many concepts and variations in data and information given. I did enjoy the institute and have learned a lot of things for use in my classroom.

Some people may need extensions. I work full time during the summer, and I was not able to put as much time into it as I would have liked.

This was too much work for a 3-week course. I suggest that IF you keep the 2 presentations per week, require one lesson from one presentation and discussion questions from the other presentation - NOT both. Or just have one presentation with questions & online dialogue.

The summer institute was quite involved. I did not feel prepared until the final day at COSEE for the amount of work required. I believe that teachers should be given more information about what is actually required. Also, I would have preferred that all 6 of the presentations post at the beginning of the session. Teachers have a great deal of preparation to do in the summer to get ready for the year ahead. I would have rather had 3 weeks to complete everything at my own pace. I did not like that I could not work ahead and finish early. Another suggestion would be to possibly hold the COSEE institutes earlier in the summer so teachers would have time afterward to prepare for the school year.

### *Interaction With the Scientists and Their Requirements*

A second thread of comments were loosely correlated to the materials provided by the scientists for their particular presentation and the interaction they wished to see with said scientists (Table 18). The first comment makes this emphatically clear by stating they wanted all the presenters available and participating. As with last year, we had a presenter that never logged on to answer a question or interact with the participants, and some scientists had some, but very limited interaction (see Table 13). This is a very valid observation, and something we need to address as a center. Going forward, all presenter scientists need to know what is required of them, and they should not be utilized if they feel they cannot fulfill these requirements. This includes not only interacting during the institute, but delivering materials by the given due date.

A second suggestion was addressed by several participants. Some felt that the discussion questions were a bit vague, or required too much outside work to answer. Indeed one said they had a hard time grasping what was being asked or where to find the answer. Given the lack of interaction in some presentations, this may have added to the confusion. Others said they thought the questions were not beneficial, nor applicable to their future work or experience. Some of this confusion may be addressed by working with scientists to ensure that the discussion questions accurately address the material presented, and are not too far "over the head" of our participants. One recommendation would be to have a staff member be assigned to review every discussion question submitted before they are posted and work with the scientist involved if there are any perceived problems.

A final suggestion was also related to the discussion questions. The participant felt like there were too many questions being asked each week between the two presentations, and some were far too involved and time consuming to answer. Dr. McCann did note this year a wide range of types of discussion questions being asked. Some were very simple review questions, while others were multi-faceted and have several subsections. Others required outside research and attachment of files. It is suggested as a center, that we look at what these discussion questions

should be asking and try to come up with a standard type of question that addresses components such as the length and amount of time that might be necessary to accurately and effectively answer each.

The most important thing that can be taken away from this thread is the importance of working closely with the scientist as a center to make sure that the presentation is accessible to the participants, works well within the timeframe given and that they clearly understand what they are being asked to do. Perhaps finding these scientists in the fall of each year preceding the institute and requiring the materials to be due by the January or February before as well might be a good suggestion. This would allow plenty of time to review the material and work with the scientist to ensure a successful presentation.

**Table 18. Suggestions for Improvement of the Summer Institute – Scientist Interaction and Requirements**

Make sure ALL the presenters are available and will participate in the online forum.
I felt as though I had to do lots of outside research to be able to answer the discussion questions adequately. I'm not sure if that was the intent or not, but for some reason I was led to believe that all the information we would need to answer them would be in the online presentation. That needs to be made clearer to participants. I did A LOT of research away from the presentation. I also learned A LOT...so maybe that was the intent. But I guess I was trying to be overly conscientious. I know we were not, but I let myself feel like we were being graded on these questions. Some of this stuff was hard for me to grasp fully. Again, I DID learn a lot. I just let it consume me in my effort to make my answers and my lesson plans PERFECT.
I felt blind-sided by the questions with a few of the presentations. Three presentation questions I could have answered without reading the presentation because the questions required other sources for the answers.
There were more requirements of the online sessions that I was made aware of upon applying for the program. I would suggest those requirements need to be made along with those made for the in-field sessions.
Additionally, from my teacher perspective, I didn't find the presentation discussion questions beneficial or applicable in my future classes. There seemed more geared to participants who were receiving college/graduate credit for the COSEE course.
There was neither communication nor feedback regarding submitted lesson plans. The COSEE lesson plan format is different than I use. I would have liked feedback throughout the course indicating if my lesson plan submissions were sufficient. If I was able to collaborate with another teacher on the lesson plans, I would have felt more comfortable with my lesson plans.
The discussion questions were almost too time consuming. Sometimes we had 9 questions in one week and each question had 4 sections and several of the questions required additional research.
Do away with the excel worksheet that was required to be uploaded with the discussion question. This was too much effort.

#### *Technology and Requirements Suggestions*

A third thread of comments were found to fit within the category of technology related to Moodle, how we deliver the course and specific requirements (Table 19). Specifically, one participant asked that we offer audio narration with each presentation. This year, two of our

presentations were narrated, and they received very positive comments in the discussion board section of the institute. One such comment follows:

"I think [the] presentation [with audio] wins for "Most likely to be watch by COSEE participants". I was able to bounce my granddaughter on my knee and understand the presentation at the same time. The audio part of the presentation help me feel like I was in the classroom. The material was well organized and easy to understand." (Appendix D, p.130)

It is suggested that we seriously consider requiring this in the next year's institute requirements for scientists. Drs. Kastler and Spranger have already noted they would be interesting in doing this. This might be a very good topic to bring up at our next face-to-face meeting of the center staff and evaluators.

Another suggestion was that the lesson plan that was uploaded be changed to a group lesson plan. This could be done in the Moodle system, so that one person could upload material and then allow others to download it, edit and then upload again. This type of collaboration; however, was tried in the math and science partnership program that was held by the Center for Educational Training and Technology, and it was a failure. It was found that some participants did not do much work at all, or none, and often, one or two persons were writing the entire lesson. Thus, the suggestion from the authors would be to not allow group lesson plan submissions.

The final suggestion related to a technology issue that was encountered by one participant, whereby they were spending so much time answering a question, the system timed them out, logged them out, and they lost their work. A suggestion would be to make sure the participants know this might happen, and to suggest they answer their questions in an outside application such as Microsoft Word, and then copy and paste the final answers into the appropriate sections in the Moodle environment.

Table 19. Suggestions for Improvement of the Summer Institute – Tech. and Requirements Suggestions

Provide audio with the presentations, it was extremely helpful to understand the information present when I heard it and read it at the same time.
I do think that teachers should be able to work in groups to create lesson plans. I think that a collaboration of teachers will produce better lesson plans that will make it more precise with units being taught in the classroom.
Please make sure that people are aware of the "timing out" and to save without submitting between answering each discussion question. Also, I could not open the videos link to on www.oneearth.org. I'm not sure if others had trouble with this or not. I was able to find one video mentioned on YouTube. I enjoyed the workshop and feel as if I've learned quite a bit. I hope that I can stay in contact with the scientists, as they've been very helpful. Please make it very clear to future COSEE people that they will need to dedicate a month to this program. I am glad I did the work, but I honestly wasn't sure what to expect. This was my first online class, and I feel like it was a lot of work. Everyone has been very helpful however.

## Additional Comments

A final section allowed participants to make any additional comments that they might wish. Many of these comments relate to the threads presented in the previous section, thus they are listed in Table 20 below for separate review.

Table 20. Additional Comments

I paid \$306. 00 for a plane ticket to La. I sat in the La airport for three hours waiting for a ride (I knew this in advance). I spent \$10.00 on breakfast while I waited. Then, my return flight was delayed 5 hours. So, I spent \$30.00 on lunch and dinner. So, assuming I receive a check for \$500.00 that leaves me with \$154.00 for a month of work. Now, that does not include the money I spent on electricity to run my computer...I would do it again ☺. Also, my saved answers to some essay questions disappeared before I submitted them.
My favorite part of the experience was the online forum. I thoroughly enjoyed the exchanges between all of us involved. I am going to miss that part.  How long will those posts be available for us to review? There a few that I would like to look over again.
I don't really know any other way around it because the concept of COSEE wraps around a large amount of information, but MAN it was a lot of stuff. I remember in one post though, someone mentioned the huge amount of such a wide range of information. But the point was made that it all wrapped around to get us to see the big picture...the grand scheme of things.
Though the COSEE program was very rewarding for me personally, I still was caught off guard by the amount of work that needed to be completed within the time frame.  The in-field experiences had days that were booked solid, and by the last night/day, I was personally frazzled. Thus, I didn't feel confident with my face-to-face lesson presentation. This frustration continued as I became aware of the online requirements as I had to submit lesson plans and answer graduate level discussion questions on presentations that I didn't understand.
My suggestion would be to have a specific list of requirements for the on-line sessions available upon applying for COSEE. Having the statement on the application requirements of "10 days of long distance learning" was inaccurate.  On the sign in page for the summer institute, the statement "Each presentation will feature:" does not translate that the teacher needs to accomplish all the features. The next paragraph sites the major component of the institute is the development of lesson plans. Yet I never received any input from any researcher regarding my submitted lesson plans, nor was I allowed to collaborate with other teachers in writing those plans. I could informally discuss my lesson idea with others, but the amount of work each teacher was responsible for completing didn't leave a lot of time for such discussions to occur.
Although this program was very demanding and intense, I am very glad that I was able to participate in it. I have learned a lot about teaching marine science and I have learned a lot about myself. I am finishing this institute with more knowledge, understanding, appreciation and resources to bring into my classroom and everyday life. Even knowing what I know now (about all the work involved) I would do it all over again! Thank you for letting me participate in this experience!
I found some of the discussion questions very difficult and time consuming. Some questions required a couple of hours just to find information needed to answer them.

I have greatly enjoyed my time in the institute. I have learned so many new things that I can use in floor programs at the Aquarium. It has also furthered my desire in becoming an oceanographer. Jessie was great to work with and taught me so much (my thousands of questions!!). I have made great friends that I can feed off of for classroom topics and discussions. I have and will continue recommend this program to other teachers and educators that I know. Thanks a bunch for all the wonderful information and great times during the face-to-face. If I can do it next summer I will (maybe as a scientist one day ☺)!

I learned a lot!!!

I was given the impression, both in the description and verbally at the summer institute, that the discussion questions would be about the presentations. I did not find that to be the case in three presentations. My suggestion is to better describe the questions in relation to the presentations to include that the questions will require additional sources other than the presentation.

I would like for the institute to be able to offer scholarships to teachers and their students (contest for a field trip) to attend an institute type learning experience. I realize that would be extra money but, I believe the teacher could communicate the importance of the Gulf of Mexico if they had an opportunity to visit and experience firsthand some of the activities from this institute.

Initial communication about expectations need to be improved. If I knew that it was going to take a whole month of my summer, I probably would not have elected to do it. However, this was not communicated until I was well into the program and even then I didn't realize how much time the online component would take. It is great for those wanting credit but too much for those wanting to casually learn more. My mother never allowed me to quit something without finishing it, so I felt obligated. The total time I put into the program was more than 100 hours over 4 weeks.

Just to let you guys know, I have already presented to two groups of teachers already this summer about COSEE. (30 in all) I will have an opportunity to some more presentations before the first week of school, which starts Aug. 24th. I want to say how much I enjoyed this and how much I got out of both the week workshop and the on-line course. Thank you for all the hard work and effort that everyone put into making this program, in my opinion, a huge success!

Overall, COSEE was an experience that I will never forget. I learned so much. The content of the presentations was very informative and interesting. The presentations with the audio clips were easiest to understand and comprehend.

Thank you all for your help! I look forward to working with you again in the future!

The audio clips of the presentations were a great help to me, I could focus on the graphics while listening, which is helpful.

This was a wonderful experience, thank you

This workshop required a great deal more work than I was expecting. It was very time consuming.

Intense, but enjoyable, I would do it again. Well thought out, and well planned. No major suggestions for improvement.

Thoroughly enjoyed the multi-faceted lessons