



NEIWPC Grant # 0355-002
Project Code: 2004-026
Project Title: Estuaries & Watersheds

FINAL REPORT

Summary

The “Estuaries and Watersheds” project was designed to provide opportunity for 15 school groups to participate in interactive and comprehensive programming about the Hudson River. This project began with the success of our 2003 NY-NJHEP mini-grant project using our unique Hudson River Estuary Model; the 2004 proposal incorporated improvements to the programming (adding an additional hour-long activity to the program and providing the programs at the Beczak Center as opposed to the schools) which we hoped would enhance the learning experience and encourage classroom teachers to incorporate Hudson River education into their curriculums.

Seventeen two-hour programs were provided at the Beczak Center for 429 students and their teachers from nine different schools. The participating schools were from Yonkers and Brooklyn.

The total cost of this project was \$6,474, including \$1,574 in matching funds.

Goals Reached

The objective of this project was, “to teach children about the ecology of the Hudson River Estuary” with the expected results of our programs to be “increased knowledge and awareness about the Hudson River estuary and watershed” in an effort to “foster an appreciation for the importance of environmental protection and stewardship”. While it is not yet possible to measure the outcomes of our long-term objective (whether our students practice environmental protection and stewardship) we certainly succeeded in teaching children about the ecology of the Hudson River Estuary.

Our original proposal set a goal of fifteen programs and, due to lower transportation costs than anticipated (\$1,875 were budgeted and we only spent \$1,792) we were able to re-allocate the money towards providing two additional programs.



It was also important for us to provide comprehensive programming and our students did walk away with a broader knowledge of the Hudson River ecosystem than when they participated in shorter programming which covered fewer topics.

Problems

The heart of the project –our programs- was easy for us to implement. In fact, we underestimated the demand for this kind of programming and were able to schedule and provide the first fifteen programs within the first 3 months of the project. The two major problems we encountered during fulfillment of this grant was spending our money as allocated in the proposed budget and spending the money according to the timeline of the grant. These problems can be attributed to three smaller issues we encountered during implementation of the grant.

Our budget proposed that we would spend \$1,875 in transportation to bring our students from their respective schools, to the center. Six months into the project we were not receiving bills from bus companies and still had \$1400 to spend on transportation. During this time frame we began to purchase some of the supplies for our program. We requested funds to enlarge photographs of landmarks along the river which we use during the program. The costs for this service cost us \$270 more than the estimated amount. This is when we requested a modification to re-allocate our budget to fund additional programming. Subsequent to approval of this modification request we began to receive additional bills from transportation companies which further extended our timeline.

During implementation of this project we also encountered time delays related to staff turnover. During the course of this grant we had turnover in two educator positions. While we ended up with a net gain in educators (one more than when we started) we were also without a full time educator for a few months and all of our pending projects were on hold while we hired and trained new staff during the course of seven months. The purchasing of program supplies was heavily reliant on having trained and experienced educators who could take time to design new program tools in an effort to make our programs more entertaining and interactive. Redesigning our programs and purchasing new program supplies took us a little over two months.

Results of Evaluation

In order to evaluate the success of the project we utilized post-program evaluation surveys (completed by the participating teachers) and monitored the students' comprehension during each program. The latter provides us with a portion of our formative evaluation during the programs so that we could adjust programs accordingly. Each of the programs we provided requires a spiraling of knowledge to continue so that the educators do not proceed without ascertaining that the participants are learning the information presented to them. Each program also ends with the students recalling and summarizing the information they have learned. This type of evaluation is important because it allows the educator to adjust the program according to the pace of the students, as opposed to waiting until an evaluation comes back in the mail after a program.

Evaluation forms were submitted by the majority of program participants (please see attached copies of evaluation forms). Nine different schools participated in our programs and we received 6 completed forms representing 4 of these schools. The remaining participants who did not submit evaluations expressed that they were pleased with the program during their visits. Of the six forms that we received, 4 of the teachers responded that all of the participants were able to reiterate the concepts presented to them and 2 expressed that “many” or the “majority” of their students were able to reiterate the concepts. In our evaluation matrix all of our program components were evaluated as either “excellent” or “good” (the highest two ranks).

We also received some very valuable comments in our evaluation forms. Two pieces of constructive criticism helped us to redesign our programs. One suggestion was that our programs should be even more hands-on than originally designed. We agreed wholeheartedly and thanks in part to funding from this grant we were able to purchase new equipment to provide activity kits for small groups of children during our *Great Water Mix-up* program and new program tools were purchased for our Estuary Model program which help reinforce concepts and allow more children to participate in demonstrations. We also received comments from one teacher that felt that our educator may have had trouble adapting the program to the students existing knowledge. The issue raised by this comment was addressed by purchasing additional tools to give the educator a greater variety of topics to select from during the program and by adding an “existing knowledge base” assessment (verbal question and answer) to the beginning of the program.

Through our evaluation it also became apparent that providing the programs at the center was an important factor in the success of the program. The most frequent response to “...what was the most positive aspect of this program?” was the program location, including the views of the river and our exhibits which groups had time to explore during or after the program. This confirmed our suspicion that providing our programs on site as opposed to at the schools can enhance the learning experience and teachers’ overall satisfaction with the program.

We were impressed by the range of responses when the teachers were requested to, “list any follow-up activities [they] are planning or have provided that will extend the learning”. The responses listed New York State history and geography, a food chain play, terrain models and a writing project, to name a few. These responses were encouraging to read since they clearly demonstrated that the programs were successful in encouraging teachers to incorporate Hudson River education into their curriculums.

While we would have liked to receive more evaluation forms we do feel that our evaluation was adequate for the purposes of evaluating the success of our project as well as appropriate for this type of education initiative.

NY-NJ HEP 2004

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School Name	City	Program Date	Number of Students
1 Cedar Place Elem	Yonkers	10/15/04	25
2 School 18	Yonkers	10/25/04	25
3 School 17	Yonkers	10/27/04	25
4 School 17	Yonkers	10/27/04	25
5 Brooklyn New School	Brooklyn	11/1/04	26
6 Brooklyn New School	Brooklyn	11/3/04	25
7 Brooklyn New School	Brooklyn	11/5/04	25
8 School 13	Yonkers	11/8/04	25
9 School 13	Yonkers	11/8/04	25
10 St. Peter's School	Yonkers	11/9/04	21
11 School 13	Yonkers	11/10/04	32
12 Family School 32	Yonkers	11/16/04	25
13 Family School 32	Yonkers	11/17/04	25
14 Family School 32	Yonkers	11/17/04	25
15 Dodson School	Yonkers	11/18/04	25
16 School 13	Yonkers	6/10/05	25
17 School 13	Yonkers	6/10/05	25
			429

BECZAK ENVIRONMENTAL EDUCATION CENTER'S PROGRAM EVALUATION

School or Organization Name Cedar Place School
Teacher(s) or Organizer(s) Mrs. P. Bruno Mrs. A. Maschino
Grade or Age of Participants 4th grade Number of Participants 25
Program Date 10-15-04

1. Did you feel that the overall planning process was sufficient and effective?
yes
2. Did you find the pre-trip information to be useful?
yes
3. Were the concepts presented during the program appropriate to your age group? If not, were they too easy or too difficult?
it felt that it was right on target.
4. Were the participants able to reiterate the concepts that were presented to them?
yes
5. In your opinion, what was the most positive aspect of this program?
presenter was knowledgeable and enthusiastic.
6. Is there anything about the program that you would change? Please include suggestions for improvement.
7. Please list any follow-up activities you are planning or have provided that will extend the learning.
We are learning about NY state - history & geography
8. Is there anything about our facilities that you would change? Please include suggestions for improvement.

PROGRAM EVALUATION

9. Please list any program topics or learning concepts/ skills that would be useful to you if incorporated into future programs.

Please check boxes to indicate your evaluation of the following program components.

	Excellent	Good	Adequate	Poor
Apparent preparedness for program	<input checked="" type="checkbox"/>			
Educator's ability to interact appropriately with participants	<input checked="" type="checkbox"/>			
Educator's ability to answer students' questions	<input checked="" type="checkbox"/>			
Fulfillment of your objectives for the program	<input checked="" type="checkbox"/>			
Appropriate selection of teaching materials/ equipment	<input checked="" type="checkbox"/>			
Appropriate selection of teaching methods	<input checked="" type="checkbox"/>			
Program's success in generating and/or maintaining enthusiasm about the Hudson River	<input checked="" type="checkbox"/>			
Program's success in expanding participants' knowledge of the Hudson River	<input checked="" type="checkbox"/>			

Please check boxes to indicate your evaluation of the length of time reserved for your program(s).

	Too long	Just right	Too short	Not applicable
Indoor Activity				
Outdoor Activity				

Additional Comments:

Because it was raining we were inside for the whole time which was a little too long. We did go outside for about 10 mins. I think the children would have enjoyed the outside program as well.

Thank you for your feedback!

BECZAK ENVIRONMENTAL EDUCATION CENTER'S PROGRAM EVALUATION

School or Organization Name

Brooklyn New School

Teacher(s) or Organizer(s)

Katherine Sorel

Grade or Age of Participants

4th

Number of Participants 28-28 x 3

Program Date

~~October~~ Nov 1st, 3rd 5th

1. Did you feel that the overall planning process was sufficient and effective?

Yes. There was just confusion about whether the classes were going to be split in two & workshops offered simultaneously or not.

2. Did you find the pre-trip information to be useful?

Yes, although we already had an on-going curriculum that we just continued, using terrain models, & library resources.

3. Were the concepts presented during the program appropriate to your age group? If not, were they too easy or too difficult?

Yes.

4. Were the participants able to reiterate the concepts that were presented to them?

Yes.

5. In your opinion, what was the most positive aspect of this program?

The locale & space; the watershed model

6. Is there anything about the program that you would change? Please include suggestions for improvement.

The salinity testing ^{workshop}. I would recommend making more interactive. Even if there is only one salinity tester, students could work in small groups w/ samples of the water & explore their theories & testing ideas.

7. Please list any follow-up activities you are planning or have provided that will extend the learning.

Students continued their explorations w/ our terrain models.

8. Is there anything about our facilities that you would change? Please include suggestions for improvement.

They were perfect!

Then the salinity tester could just be ~~passed around~~ used at the end.

I also think the steps of the scientific method could ~~be~~ be presented w/out quite ^(over) so much discussion of each piece. ^{It was a lot of fun}

PROGRAM EVALUATION

9. Please list any program topics or learning concepts/ skills that would be useful to you if incorporated into future programs.

Please check boxes to indicate your evaluation of the following program components.

	Excellent	Good	Adequate	Poor
Apparent preparedness for program	✓			
Educator's ability to interact appropriately with participants		✓		
Educator's ability to answer students' questions	✓			
Fulfillment of your objectives for the program		✓		
Appropriate selection of teaching materials/ equipment	✓			
Appropriate selection of teaching methods		✓		
Program's success in generating and/or maintaining enthusiasm about the Hudson River		✓		
Program's success in expanding participants' knowledge of the Hudson River		✓		

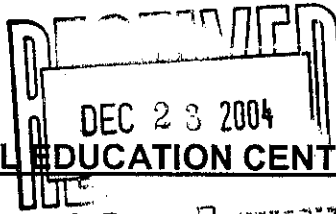
Please check boxes to indicate your evaluation of the length of time reserved for your program(s).

	Too long	Just right	Too short	Not applicable
Indoor Activity				
Outdoor Activity				

Additional Comments: The amount of time was okay but only if there had been more to do. For just talking it was a little long.

The educator was really nice & well-prepared. It seemed a little hard for him, though, to adapt to the group in front of him. Our kids quickly showed that they already knew much of what he thought he was introducing, as "new" info. But the lesson wasn't modified accordingly. On the other hand, during the 2nd workshop when a couple kids were literally falling off their chairs because they couldn't sit still, ~~those~~ that was a sign that those kids needed to be brought up to do something, but also that it needs to move faster, even if it means ending earlier & cutting something out.

Thank you for your feedback!



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BECZAK ENVIRONMENTAL EDUCATION CENTER'S PROGRAM EVALUATION

School or Organization Name

PS. 13, Yonkers

Teacher(s) or Organizer(s)

Joan Caputo (for Mrs. Graves' Class)

Grade or Age of Participants

5 Number of Participants 30

Program Date

11/10/04

1. Did you feel that the overall planning process was sufficient and effective?

Yes

2. Did you find the pre-trip information to be useful?

Yes

3. Were the concepts presented during the program appropriate to your age group? If not, were they too easy or too difficult?

Yes. Appropriate

4. Were the participants able to reiterate the concepts that were presented to them?

Yes

5. In your opinion, what was the most positive aspect of this program?

All hands on activities and physically being near the Hudson River for the students.

6. Is there anything about the program that you would change? Please include suggestions for improvement.

7. Please list any follow-up activities you are planning or have provided that will extend the learning.

8. Is there anything about our facilities that you would change? Please include suggestions for improvement.

It would be helpful if 2 classes would be able to eat lunch inside if necessary.

PROGRAM EVALUATION

9. Please list any program topics or learning concepts/ skills that would be useful to you if incorporated into future programs.

Conservation & recycling.

Please check boxes to indicate your evaluation of the following program components.

	Excellent	Good	Adequate	Poor
Apparent preparedness for program	✓			
Educator's ability to interact appropriately with participants		✓		
Educator's ability to answer students' questions		✓		
Fulfillment of your objectives for the program		✓		
Appropriate selection of teaching materials/ equipment	✓			
Appropriate selection of teaching methods	✓			
Program's success in generating and/or maintaining enthusiasm about the Hudson River	✓			
Program's success in expanding participants' knowledge of the Hudson River	✓			

Please check boxes to indicate your evaluation of the length of time reserved for your program(s).

	Too long	Just right	Too short	Not applicable
Indoor Activity		✓		
Outdoor Activity				

Additional Comments:

Thank you for providing a great educational opportunity. The students learned a lot and we enjoyed it.

Thank you for your feedback!

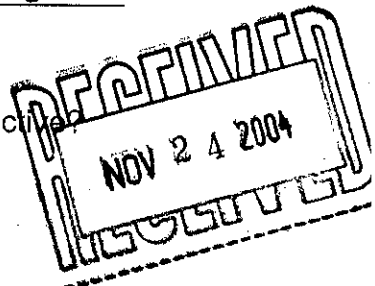
BECZAK ENVIRONMENTAL EDUCATION CENTER'S PROGRAM EVALUATION

School or Organization Name Family School 32

Teacher(s) or Organizer(s) Stacy Kaps

Grade or Age of Participants 8 Number of Participants 20

Program Date 11/17/04



1. Did you feel that the overall planning process was sufficient and effective?
Yes.

2. Did you find the pre-trip information to be useful?

We didn't receive much information prior to the trip. It would be helpful to have a brochure to help us

3. Were the concepts presented during the program appropriate to your age group? If not, were they too easy or too difficult? ^{with} planning lesson:

Yes, but it was challenging for them. They did well, however.

4. Were the participants able to reiterate the concepts that were presented to them?

Yes, very well.

5. In your opinion, what was the most positive aspect of this program?

The hands-on-food chain. The students actually memorized every animal/plant in the one described in the presentation.

6. Is there anything about the program that you would change? Please include suggestions for improvement.

7. Please list any follow-up activities you are planning or have provided that will extend the learning.

The students wrote about what they learned. We will be returning to food chains later in the curriculum.

8. Is there anything about our facilities that you would change? Please include suggestions for improvement.

No, it was very convenient and manageable.

PROGRAM EVALUATION

9. Please list any program topics or learning concepts/ skills that would be useful to you if incorporated into future programs.

Please check boxes to indicate your evaluation of the following program components.

	Excellent	Good	Adequate	Poor
Apparent preparedness for program	✓			
Educator's ability to interact appropriately with participants		✓		
Educator's ability to answer students' questions	✓			
Fulfillment of your objectives for the program	✓			
Appropriate selection of teaching materials/ equipment	✓			
Appropriate selection of teaching methods	✓			
Program's success in generating and/or maintaining enthusiasm about the Hudson River	✓			
Program's success in expanding participants' knowledge of the Hudson River	✓			

Please check boxes to indicate your evaluation of the length of time reserved for your program(s).

	Too long	Just right	Too short	Not applicable
Indoor Activity		✓		
Outdoor Activity				✓

Additional Comments:

Thank you for your feedback!

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BE CZAK ENVIRONMENTAL EDUCATION CENTER'S PROGRAM EVALUATION

School or Organization Name

Family School 32

Teacher(s) or Organizer(s)

Linda Ciari, Nancy West, Jamie Dours

Grade or Age of Participants

3

Number of Participants

75

Stacy Kaps

Program Date

+ 3rd gr. inclusion

11/16/04

over 2 days

1. Did you feel that the overall planning process was sufficient and effective?

Yes, I enjoyed speaking with Niall many, many times about the free trip & bus. He was very polite

2. Did you find the pre-trip information to be useful?

and patient with me. More details are needed - perhaps a hand-out for teachers to use prior to trip

3. Were the concepts presented during the program appropriate to your age group? If not, were they too easy or too difficult?

Niall was able to compensate for the wide variety of academic levels, especially with the Inclusion

4. Were the participants able to reiterate the concepts that were presented to them?

class. The majority of students understood the material.

5. In your opinion, what was the most positive aspect of this program?

We did administer a follow-up quiz. Some were very successful at recalling the information. The students liked the exhibits, especially the exhibit filled with sand and river creatures.

6. Is there anything about the program that you would change? Please include suggestions for improvement.

I enjoyed the model of the Hudson River because three years ago, 2 facilitators brought the Ciba model to my class with a follow-up excursion to Cobbs Ferry.

7. Please list any follow-up activities you are planning or have provided that will extend the learning.

Follow-up exam - small quiz

8. Is there anything about our facilities that you would change? Please include suggestions for improvement.

Some explanation of the center's exhibits would be appropriate and welcomed.

PROGRAM EVALUATION

9. Please list any program topics or learning concepts/ skills that would be useful to you if incorporated into future programs.

Food chain - He took a vote!

Please check boxes to indicate your evaluation of the following program components.

	Excellent	Good	Adequate	Poor
Apparent preparedness for program	✓			
Educator's ability to interact appropriately with participants	✓			
Educator's ability to answer students' questions	✓			
Fulfillment of your objectives for the program	✓			
Appropriate selection of teaching materials/ equipment	✓			
Appropriate selection of teaching methods	✓			
Program's success in generating and/or maintaining enthusiasm about the Hudson River	✓			
Program's success in expanding participants' knowledge of the Hudson River	✓			

Please check boxes to indicate your evaluation of the length of time reserved for your program(s).

	Too long	Just right	Too short	Not applicable
Indoor Activity		✓		
Outdoor Activity	N/A			→

Additional Comments:

Niall was terrific! He was kind, patient, and courteous to everyone. Niall also has a tremendous amount of knowledge about the subject matter.

*Thank you,
Linda Crane
and Staff*

Thank you for your feedback!

BECZAK ENVIRONMENTAL EDUCATION CENTER'S PROGRAM EVALUATION

School or Organization Name

Family School 32

Teacher(s) or Organizer(s)

Miss Jamie Downs

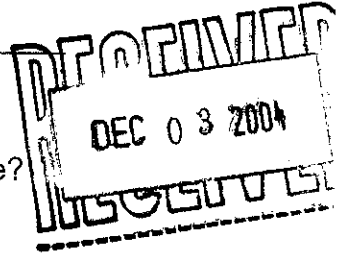
Grade or Age of Participants

3rd

Number of Participants

19

Program Date

11/17/04

1. Did you feel that the overall planning process was sufficient and effective?

Yes, the more hands on the better.

2. Did you find the pre-trip information to be useful?

I did not get that information

3. Were the concepts presented during the program appropriate to your age group? If not, were they too easy or too difficult?

Some of the vocab words were a little difficult for 3rd grade. Example: zooplankton, phytoplankton

4. Were the participants able to reiterate the concepts that were presented to them?

We wrote paragraphs on what we learned.

5. In your opinion, what was the most positive aspect of this program?

Many of them remembered all that was present
The positive was the students were able to participate, explore. ~~something~~

6. Is there anything about the program that you would change? Please include suggestions for improvement.

To try to be as active as possible with the students. Have all students participating

7. Please list any follow-up activities you are planning or have provided that will extend the learning.

Have student create a different food chain or write a play of a food chain.

8. Is there anything about our facilities that you would change? Please include suggestions for improvement.

Great Experience !!
Thanks

PROGRAM EVALUATION

9. Please list any program topics or learning concepts/ skills that would be useful to you if incorporated into future programs.

Please check boxes to indicate your evaluation of the following program components.

	Excellent	Good	Adequate	Poor
Apparent preparedness for program	✓			
Educator's ability to interact appropriately with participants		✓		
Educator's ability to answer students' questions	✓			
Fulfillment of your objectives for the program	✓			
Appropriate selection of teaching materials/ equipment		✓		
Appropriate selection of teaching methods		✓		
Program's success in generating and/or maintaining enthusiasm about the Hudson River	✓			
Program's success in expanding participants' knowledge of the Hudson River	✓			

Please check boxes to indicate your evaluation of the length of time reserved for your program(s).

	Too long	Just right	Too short	Not applicable
Indoor Activity	✓			
Outdoor Activity				✓

Additional Comments:

Thank you for your feedback!