An Evaluation of the Warren Community School CO-SEED Site

Presented to:

Antioch New England Institute

and

Warren Community School

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October 2008

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

The overarching pattern found in the evaluation data was the **breadth of impact** of place-based education (PBE) for all major target audiences. Of particular note was the **centrality of improved school-community connections**. PBE inspired many new community-related activities, practices, and events. The subsequent effects reported for students, educators, school culture, and the community at large tended to directly relate to school-community interactions. These processes seemed to positively reinforce each other. When asked to specify whether PBE had had the strongest impact on students, teachers, or the community, most interviewees were reluctant to specify one at the expense of the others, further suggesting a more comprehensive and intertwined web of PBE effects at this site.

> *"Warren is a unique community in that it has no center. The downtown area is, for all intents and purposes, gone. And now the Historical Society is building a park, and the idea is to establish a center. But for me, the emotional center of the community really is the school."*
> *- Warren community member*

The primary intended use of this evaluation was to evaluate the impact of the CO-SEED program for the purpose of informing decisions about the future of place-based education in Warren. A secondary intended use was to look at successes and obstacles in CO-SEED implementation. The bulk of the analysis was based upon the following data sources, collected between 2005 and 2008:

- Interviews with 137 educators, community members, CO-SEED program staff, students, and district administrators; and
- 105 surveys received from Warren Community School educators and staff.

This report summarizes findings from these data sources, and offers recommendations for future program refinement and extension.

Findings and Discussion

Five main themes emerged in support of the overarching pattern named above:

- ➢ Putting the "community" into the Warren Community School
- ➢ Place-based education beginning to become enmeshed in the school culture
- ➢ Differentiated Instruction (DI) and Place-Based Education (PBE) went "hand-in-hand"
- ➢ Student engagement in learning was associated with community connections
- ➢ Sustainability of place-based education was discussed with some anxiety

The legacy of CO-SEED in Warren was a strengthening of the connection between the school and the community. With the help of CO-SEED, place-based education began to become more integral to how learning happens in Warren.

Recommendations

- ✓ Strengthen opportunities to continue building on school-community connections
- ✓ Build in regular planning time for educators to collaborate on place-based education
- ✓ Establish place-based education as a priority beyond elementary school
- ✓ Engage in a district-wide conversation about the definition and centrality PBE
- ✓ Provide resources for educators less experienced in PBE to start small projects that involve using local resources and the local community
- ✓ Document PBE projects, and recognize and celebrate the efforts of all individuals involved with place-based projects

Summary reflection on the sustainability of PBE at Warren

PBE has taken root in Warren, but the future vigor of PBE is uncertain. The combination of support amongst WCS staff, Warren community members, and SAD40 administrators may actually make the situation ripe for long-term sustainability of PBE if resources and vision emerge to make it so. At the end of the data collection period for this report, there was a decision made to continue the community learning coordinator position for the following year, but with reduced hours so that the coordinator could be available for other schools within the district as well. This decision, which effectively decreases the dose of CO-SEED for the upcoming year, is important in the light of the findings of this report that the Warren school culture was just beginning to show signs of a cultural shift towards having a central focus on PBE. How much "dose" is necessary to maintain the progress that the CO-SEED program has helped initiate remains an open question.

PROGRAM CONTEXT

The WHAT and WHERE of this evaluation

The CO-SEED Program

Project CO-SEED's primary purpose is to help schools and communities work together to simultaneously strengthen academic achievement, community vitality, and environmental quality. CO-SEED[1] is a project of Antioch New England Institute of Antioch University New England in Keene, NH, and has been implemented at twelve sites since 1998. The project works with a given site for three or more years, providing funding for a half time staff person from a local community organization and mini-grants, as well as facilitation of a community visioning event, a steering committee, and professional development for school staff.

The CO-SEED working Logic Model (see Appendix E) describes the program's hypothesis as follows:

If we implement comprehensive place-based education in schools, we will have a positive impact on:
  ➢ *Academic achievement*
  ➢ *Environmental stewardship behavior*
  ➢ *Community vitality*
  ➢ *Environmental quality*

Each year CO-SEED conducts extensive program evaluations, and most of these reports are made available on the web at http://www.peecworks.org/PEEC/PEEC_Reports/.

The Warren Community

Warren is a town of just under 4,000 residents covering about 50 square miles of mostly rural hills, rivers, fields, farms, and forests in the mid-coast region of Maine. It is one of five geographically distant towns that comprise the SAD40 school district, with the others being: Friendship, Union, Waldoboro, and Washington. The Warren Community School was built in 2002 and brought together two schools (an upper elementary and a lower elementary) into one building. WCS serves approximately 350 students, grades K-5, and has student and teacher populations that reflect the predominantly white ethnicity of the area.

CO-SEED chose WCS as one of two sites in Maine to be implemented with funding from a large regional grant maker. The school leadership was enthusiastic to pursue place-based education, the school grounds and community included several good opportunities to begin PBE, and there was an existing network of community and environmentally-oriented organizations working in the area. The community learning center (CLC) partner for this CO-SEED site was the Quebec-Labrador Foundation.

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[1] The word "CO-SEED" stands for COmmunity-School Environmental EDucation.

EVALUATION CONTEXT
The WHY and HOW of this evaluation

The main focus of this report is on evaluation findings from 2007-2008, the third and final year of implementing the CO-SEED program at WCS. These findings provide the most relevant summative perspective on the intended uses and evaluation questions described immediately below. However, in order to put these recent findings into a clearer context, we provide summary reflections on the evaluation work from the first two years of the program as well. These are presented in a section below, following the description of the evaluation methods. These reflections begin to shed some light on the challenges and lessons learned while in implementing the CO-SEED program in Warren.

For the overall evaluation:
 ➢ The primary intended use was to evaluate the impact of the CO-SEED program for the purpose of informing decisions about the future of place-based education in Warren; and
 ➢ A secondary intended use was to determine the biggest successes and obstacles overcome while implementing CO-SEED in Warren for the purpose of improving the general understanding of the CO-SEED model.

The following evaluation questions represent a synthesis of general questions pursued over the course of the three years of the program and the more specific questions that guided the final year of data collection and analysis:
 ➢ What characterizes the cultural context of the school, the community, and the relationship between the school and the community? To what extent have these contexts and relationships changed over the last three years?
 ➢ What are the characteristics of some exemplar place-based education projects?
 ➢ What is the nature of the relationship between differentiated instruction, responsive classrooms, and place-based education? How do they interact with, support, or inhibit each other?
 ➢ Does "dosage" of CO-SEED correlate with educator reports of impacts on students, educators, school, and community?
 ➢ What do participants envision as a possible future for place-based education in Warren and in the district?

Evaluation Methods Overview

We used multiple methods to investigate the evaluation questions, including interviews and online surveys. The following table summarizes the data collected at the Warren Community School between 2005 and 2008.

Table W1. Summary of Sources of Evaluation Data
for CO-SEED Warren Community School Site, 2005-2008

Instrument	Number and Type Administered
CO-SEED Surveys	105 Educators/Staff
Pre-interviews *(May 26-27, 2005)*	13 Educators 18 Students 21 Community members 1 WCS school administrator 1 Program staff 2 SAD40 administrators
Check-in Interviews *(March 14-15, 2007)*	14 Educators 2 Students 6 Community members 2 WCS school administrators 3 Program staff
Wrap-up Interviews *(Nov 29, 2007, and June 3-4, 2008)*	22 Educators 23 Community members 2 WCS School administrators 2 Program staff 7 SAD40 Adults (4 educators, 1 principal, 2 administrators)
Monthly Reflection Forms	(from CO-SEED staff, CLC staff, SEED team)
Other Document Review	Locally generated PBE survey results, test score data for district reading and writing assessments, observation of Warren Week, email exchanges with CO-SEED staff and CO-SEED Coordinator, photos, observation of classrooms, prioritization activity results, newspaper articles, mini-grant funding requests, professional development summaries.

Educator Survey Methods

Educator surveys were designed based on instruments previously developed for other programs in the Place-based Education Evaluation Collaborative (PEEC), of which CO-SEED is a founding member. (See Appendix C for complete contents of this instrument). School educators were invited to fill out the paper surveys at a staff meeting.

This next section provides an introduction to the dose-response measurement strategy. The basic idea of this "dose-response" measurement strategy is to use inferential statistics[2] to test whether participating in the CO-SEED program is associated with increases in the occurrence of intended program outcomes. The core question becomes: "Is the program having an effect?" The "dose" is a number from 1 to 4, calculated for each survey respondent from a survey item that asks about the extent to which the program is being implemented

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[2] Inferential statistics deduce mathematical patterns in a given data set and then use that pattern to predict dependent variables (marked on the vertical axis of a graph) from given independent variables (marked on the horizontal axis). In the context of this report, that translates as: 'given the responses that people actually made on these surveys, if an educator had a given score of such and such for dose, then we would predict that they would have a score of such and such for this particular intended outcome.'

with the students they work most closely with. The "response" is a number from 1 to 4 that is the average of survey items about specific outcomes that the CO-SEED programs is interested in, such as educator use of local resources, or educator engagement in their profession, or a student's attachment to their local community. If the dose and response correlate with each other (i.e. if a change in one is accompanied by a consistent change in the other), then the program is likely to be having an effect.

The line on the scatterplot graphs[3] in this report represents that statistical prediction. If the line slopes from lower left to upper right, it is essentially saying that the higher the dose of the program a participant has (e.g. dose = 4, meaning that the participant is using the ideas extensively in their teaching), the more likely they are to rate themselves highly on the intended program outcomes. Similarly, a lower dose (e.g. dose = 1, meaning the participant is not using the ides in their teaching at all), predicts that a participant will report lower scores on desirable program outcomes. Sloping lines on graphs in this report can be broadly interpreted as evidence that the program is likely to be contributing to the desired program outcomes. For clarity's sake, graphs are only shown if they meet additional tests for "statistical significance," which is a fancy way of saying that it is highly unlikely that observed results are due to chance only.

The slope of the regression line represents the strength of the effect of the program. Steeper slopes suggest stronger effects of the program. This is represented in the data tables in this report by the variable $\triangle R^2$ which is directly interpretable as "percent of variance." For example, if $\triangle R^2 = .2$ for the overall teacher practice module, that means that 20% of the variance in teacher practice can be predicted by the extent to which participants have been exposed to the PEEC program, i.e. their dose. Values of $\triangle R^2 = .1$ or greater is the threshold we use to gauge whether the effect is moderately large.

Interview Methods

The goal of the interviews was to determine the shape and tenor of the change in the Warren community since the beginning of CO-SEED. Participants for 2007-2008 interviews were selected by CO-SEED staff with the goal of reaching as many WCS administration and staff as reasonably possible, as well as several community members, and a sprinkling of other teachers, principals, and administrators within SAD40.

Interviews during this evaluation had a "semi-structured" or "open" format in which a basic set of ideas was pursued, but the conversation was flexible enough to follow in the direction

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[3] Calculated using a process called "multiple regression."

of whatever emerged as most interesting or relevant. This type of interview is particularly useful in program evaluation because it creates engaging interactions that help us understand both the process and the outcomes of a program, including what participants know and like about the program, how they have been affected by the program, and what they think should be different (Monroe, 2002). See Appendix D for the 2007-2008 interview guide.

Most interviews were conducted at the Warren Community School, except for some interviews with other SAD40 educators and administrators (done at the other SAD40 schools, or at the SAD40 administrative offices). Three interviewers conducted all interviews. The interviews were recorded, and during the interview another evaluator took extensive field notes. Once the interviews were completed, most were transcribed. Some were deemed to be lower priority for transcription, either because the field notes were in excellent condition, or the interview was less relevant to the evaluation – in those cases, field notes only were used.

After fieldwork was complete, interviews were coded to illuminate key emergent issues and answer the evaluation questions (Miles & Huberman, 1994). Specifically, evaluators used the following protocol for analyzing the data, using NVivo qualitative analysis software to organize and code the data:
1) Wait until the vast majority of data has been collected.
2) Read through all the data (making minimal notes) for the purpose of clarifying the context and getting a holistic impression of the data set.
3) Create an initial list of 5-20 themes that seem to reflect the data.
4) Code all data according to the theme list, while remaining open to the emergence of new themes, sub-themes, and meta-themes.
5) As the remaining data is collected, code it according to the theme list.
6) Look within the data from each theme, sub-theme and meta-theme and recode as necessary to establish clarity and coherence within each level.
7) Generate an outline of the findings and discussions section of the report based upon the final theme list.
8) Write up the narrative based upon the outline, pulling in data from transcripts to support as appropriate.
9) Drafts were reviewed by one or more colleagues on the evaluation team, including final approval by the Principal Investigator.

Reflections on prior evaluations at this site

Baseline Report

Extensive interviews were conducted at Warren Community School (WCS) immediately before CO-SEED formally began implementation at this site. The overall pattern reported in the informal baseline evaluation report was that the site was bursting with rich opportunities, but also had some major barriers, including some "wild card" challenges that could have amplified either the opportunities or the barriers or both. For the community, the opportunities included an abundance of excellent local natural and cultural resources. Barriers centered around building trust between the school and the community, poignantly sparked by a few recent highly controversial incidents. The wild card challenges consisted of the dispersed, changing, rural character and culture of the town and school district. As far as the school itself was concerned, the main opportunities included several attainable ideas for place-based projects and some strong existing programs. Barriers consisted of staff morale and the burden of state curricular assessments. The wild card challenges had to do with instability and lack of continuity at the administrative level and a sense of WCS being a "divided school" in some ways.

In order to address these potential barriers, the informal baseline evaluation report suggested conducting the Vision to Action Forum portion of the CO-SEED model sooner rather than later. The baseline report also recommended that CO-SEED implementation focus first on small projects, and then gradually build more coherence in the PBE practice over the next couple years.

> "*The community is much more apt to come in now. I think they feel a lot more comfortable volunteering and working with the children and feeling validated that they do have knowledge that they can share and make our school a better school.*"
> *- Warren Educator*

Mid-Program Check-in Report

The next round of evaluation data was collected near end of the second year of CO-SEED implementation. This data indicated that WCS was making progress towards its goal of incorporating a focus on place-based education (PBE) throughout the school community. The WAVE forum (Warren's Vision to Action Forum) had occurred, and was extremely successful. The forum was highly effective in providing a venue for closer community connections, greater awareness, and communication among previously fractionalized people and groups. CO-SEED staff cited community involvement in school projects and events as an important success of the program to date.

Yet, there was still more work to be done. Several people interviewed suggested that in order to continue to strengthen school-community connections, the school should be more open to community involvement. In addition, the scope of education reform from place-based education was not as expansive as originally envisioned by some stakeholders. CLC staff at Warren had originally envisioned a broad-scope integrated educational reform effort supported by CO-SEED. Instead, the school was engaged in a lot of interesting and engaging,

but smaller projects. Many interviewees made reference to how teachers at Warren were already feeling overwhelmed, citing their lack of time and energy as an important limiting factor in how extensively educators were able to integrate CO-SEED projects into their existing lessons or create new curriculum. Educators and community members spoke of the need for more planning time explicitly devoted to the development of PBE curricula. In addition, there was some confusion around the scope and delegation of specific job responsibilities for CO-SEED personnel. This role confusion served as a block to more effective and efficient implementation of CO-SEED.

Final Year Check-in

In November of 2007, part way through the third and final year of CO-SEED implementation, a short round of check-in interviews was inserted into the evaluation plan. One result of these was a formal decision to forego completion of the quantitative investigation of writing and reading test scores that had been ongoing for the previous two years. By the 2007-2008 school year, there was a reduced sense of pressure and emphasis from the district regarding standardized assessments, and a corresponding desire on the part of WCS staff to catch their breath after multiple recent years of intense focus on quantitative assessment. Further effort to systematically gather detailed quantitative reading and writing data in this shifting context ran the risk of alienating school personnel.

Overall reflections on CO-SEED implementation

Overall, the CO-SEED program was implemented at the Warren Community School site basically according to the model. The biggest obstacle had been confusion, growing through the first two years, about the role of the CO-SEED staff person. This was largely resolved by a strategic realignment of roles and personnel for year three. Similarly, but of less consequence, the evaluation plan had adjusted to accommodate changing needs on the ground by redirecting resources from test score analysis to additional interviews. These and other smaller changes are evidence of successful execution of the adaptability and responsiveness at the core of the CO-SEED model. Given the experience of CO-SEED at Warren, similar programs in the future could benefit from the following lessons:

Respond sooner and more forcefully to early signs of potential misalignment or confusion of roles for key personnel. Facilitating, leading, and supporting this kind of comprehensive program is an art that defies clear prescription. Much of the success seems to hinge on the particular fit between key CO-SEED personnel and the local context. Several participants noted that impacts could have been far greater if the role clarity from the Antioch staff personnel had been solved before year three. The CO-SEED model would probably benefit

from writing up more specific role, task, and job descriptions, and building a formal system for early and repeated check-ins to assure that expectations and goals are on track.

Engage district level administration early, often, and deeply. There tends to be a longer time horizon for building this level of relationship and support for programs. Some interviewees suggested that the chances of long term sustainability of PBE at Warren could have been greatly enhanced by more and earlier attention to building district level advocacy for CO-SEED and place-based education.

Invite high aspirations for results from the community Vision to Action Forum. At Warren, this part of the CO-SEED model was called Warren – A Vision for Everyone, or WAVE for short. It was so successful that it became an annual event with its own freestanding committee of volunteers. The high success at this site may be due to particular aspects of the Warren community, but it serves as an inspiring reminder of how important this kind of systematic, substantial, proactive effort to connect to the community is for this kind of school change project.

The impacts of the program are discussed in more detail in the following section, but by and large, successful implementation of the CO-SEED model did lead to stronger school-community connections and more educators being involved in larger and more integrated place-based projects.

> *"If [CO-SEED] is about community involvement, getting many more people together, and making our volunteer pool bigger, that's happening. That's making the school feel great and the community happy." – Warren CO-SEED participant*

IMPACT OF PBE ON THE WARREN COMMUNITY
Where have we come to NOW?

The overarching pattern found in the data was the **breadth of impact** of place-based education (PBE) for all major target audiences. Of particular note was the **centrality of improved school-community connections**. PBE inspired many new community-related activities, practices, and events. The subsequent effects reported for students, educators, school culture, and the community at large tended to directly relate to school-community interactions. These processes seemed to positively reinforce each other. When asked to specify whether PBE had had the strongest impact on students, teachers, or the community, most interviewees were reluctant to specify one at the expense of the others, further suggesting a more comprehensive and intertwined web of PBE effects at this site. This overarching pattern of improved school-community connections emerges from and ties together the four thematic threads described in more detail in the following pages.

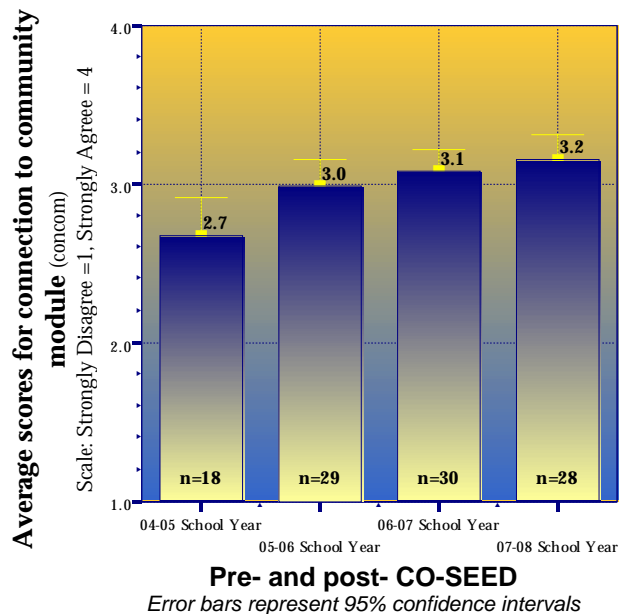## Putting the "community" into the Warren Community School

"I have seen the work at Warren Community School unite Warren's community and give it a sense of history and a sense of place."   *- SAD40 Administrator*

A majority of interviewees, both school staff and community members, reported increased community involvement with and connection to the Warren Community School. Volunteerism increased substantially in the time that CO-SEED was in Warren. Reports indicated that in the first year of CO-SEED, approximately 25 people volunteered, and in the last year, that number tripled to 75 volunteers (not including the additional people who volunteered for Warren Week). Several people noted that PBE created more opportunities for a wider variety of community members to contribute to the school. Volunteers included adults with and without children at the school, young and old, from farmers to business-owners to retirees.

The educator surveys also showed evidence of positive changes in the connection between school and community. There was a significant increase in educator reports of connection to community between the beginning of CO-SEED and the subsequent years of the program at the Warren Community School. Educator reports for this outcome increased slightly each year of CO-SEED tenure at WCS (See Figure W1).

The cause for this increase in quantity and type of community involvement and volunteerism could be, at least in part, due to the increase in place-based education projects at the school. By their very nature, PBE projects include

Figure W1. Changes in community connection
From Warren CO-SEED educator surveys, 2005-08

Y-axis: **Average scores for connection to community module** (concom) — Scale: Strongly Disagree =1, Strongly Agree = 4

Bars: 2.7 (04-05 School Year, n=18), 3.0 (05-06 School Year, n=29), 3.1 (06-07 School Year, n=30), 3.2 (07-08 School Year, n=28)

Pre- and post- CO-SEED
Error bars represent 95% confidence intervals

community involvement, and require educators to request that community members participate in the projects. The fact that more WCS staff explicitly asked community members to volunteer did seem to contribute to increased community involvement. Many community members reported that they could not say 'No' to the request, and felt honored to be asked into the school and proud to teach about their particular area of expertise. Additionally, as educators became more comfortable with the idea of community involvement in their classes, they increased their outreach, completing the cycle.

Several community members recognized that PBE provided a structured pathway to connect the community and the school. For instance, the WAVE committee, formed from the CO-SEED Vision-to-Action Forum, became its own separate ongoing working group with many successful accomplishments, including establishing the school building as the location for local voting and the town meeting.

Educators and community members claimed a mutual benefit to this improved relationship between the school and the community. Increased adult involvement in the classrooms helped educators teach students more individually, and reduced some of the stresses of teaching large classes. For some community members, being involved in the school helped them to connect to the youth and families of the community. Many respondents also noted increased student connection to the Warren community, as a result of better school-community relationships.

Place-based education beginning to become enmeshed in the school culture

The Warren CO-SEED survey and interview data suggested that the impacts of this place-based education program may have begun to reach a kind of "tipping point." This tipping point effect refers to when the program appears to become part of the school culture, norms, and practices, and thus outcomes become more powerful for the long term. In order for this tipping point effect to be indicated from survey data, a few conditions must be met:

1. Positive, statistically significant changes in outcomes between before the program was implemented (pre-) and at the end of the program (post-);

2. Positive, significant dose-response correlations for the aggregate pre- and post- data set;
   AND

3. Flat dose-response correlations for post-only survey data set.

Warren educator surveys partially but not completely matched this pattern: 1) there were significant changes in averages of most outcomes from pre- to post- (i.e. between 200 and 2008); 2) aggregate dose-response correlations were inconsistent; and 3) post-only (2008) dose-response measures were mostly but not completely flat. [See tables W2, W3, and W4 in Appendix A.] Each of these conditions will be explained more thoroughly (and hopefully more understandably to the lay reader) below.

Figure W2. Student Stewardship Behavior
From Warren CO-SEED educator surveys, 2005-08

Pre- and post- CO-SEED
Error bars represent 95% confidence intervals
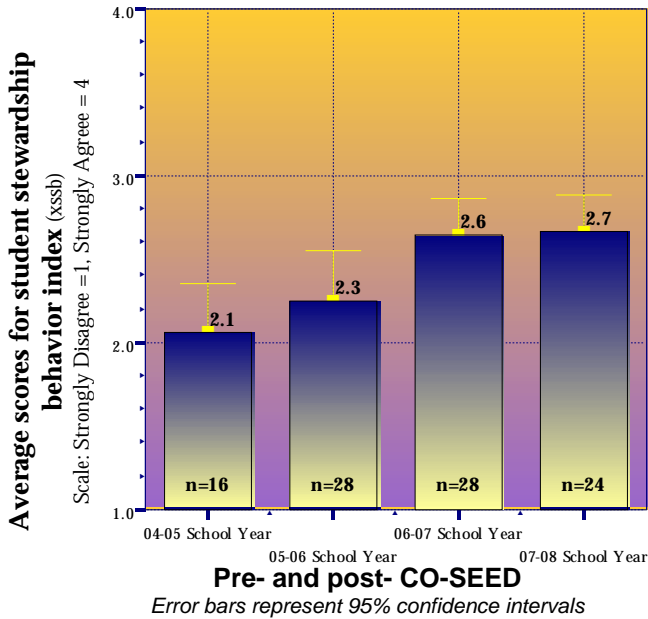
The results of the pre-post analysis (summarized in Table W2 in Appendix A) indicated consistent and large gains from pre- to post- on most indices. This provides compelling evidence of positive changes in educator practice, perceptions of student behavior, and of community during the three years of CO-SEED's formal tenure at Warren. For instance, there were significant and large differences in educators' average rating of student stewardship behavior from before the CO-SEED program began to when it formally ended (See Figure W2 at left). These differences in the educator surveys were mirrored in the interviews. Educators interviewed claimed that doing place-based projects gave their students a greater sense of responsibility and ownership for their surroundings and for their community.

Figure W3. Overall Educator Practice
From Warren CO-SEED educator surveys, 2005-08

Dosage measure
*Scale: No exposure to CO-SEED = 0,
Very high CO-SEED implementation = 4*
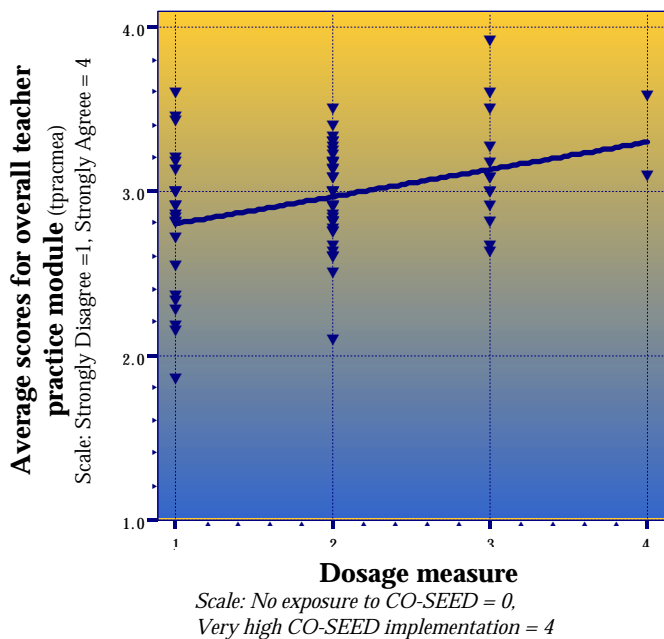
Overall, dose-response analyses ***partially*** indicated a statistically significant pattern that the more an educator implemented CO-SEED ideas, the more likely they were to report positive performance on many of the outcomes measured (See Table W3 in Appendix A for complete results). This finding is consistent with the evidence depicted in Figure W3 (at left), which suggests strong, positive effects of CO-SEED on overall teacher practice.

The largest effect sizes were associated with: *Connection to the community*; *Improving educator craft; Educator engagement and growth*; and educator perceptions of *Increased community improvement* projects.

These positive findings from the surveys matched the interview data. For example, almost all interviewees spoke about the increase in the quantity and the quality of the school-community relationships, representing connection to the community.

As evidence of the partial nature of the culture changes, survey data did *not* show increases in the aggregate measures for educator perceptions of student behaviors, or of whole-school improvements. In short, some of the aggregate dose-response measures showed increases and some did not.

An examination of post-only dose-response analyses (See Table W4 in Appendix A) showed only two positive relationships between dose and response, which would seem to indicate that the CO-SEED program was not having an effect on outcomes in this last year of the program. However, a more likely explanation (and one that matches the interview data as well) is that to some extent CO-SEED had somehow impacted the norms and culture of the Warren site. This would show up in the survey data as newer teachers exhibiting the outcomes desired by CO-SEED, even though they had, as individual teachers, experienced less direct dose of CO-SEED. This could explain why there would be differences from before and after the program, but that dose-response correlations would flatten by the end of the CO-SEED time at the school. This argument would be more convincing if some of the other criteria for the tipping point phenomenon were more clearly represented. So, again, the survey data suggests some culture change, but not a comprehensive picture.

Differentiated Instruction (DI) & Place-Based Ed. (PBE) went "hand-in-hand"

"[The relationship between DI and PBE is] like holding hands really. If you were doing a PBE activity, it pretty much in my opinion naturally lends itself to being differentiated, because it's hard to take kids out on the nature trail and not have it as a different learning style than what usually happens in the classroom." *- Warren Educator*

A majority of educators interviewed claimed that place-based education projects enabled them to differentiate instruction more easily. PBE projects were thought to be naturally more experiential, leading to differentiation in the types of classroom activities educators used to teach concepts, beyond books and talking. This differentiation in teaching activities allowed educators to better meet the needs of varied learning styles and students' abilities. Additionally, place-based projects brought in outside people into the classroom, which also facilitated more differentiation in instruction.

How PBE supported Responsive Classrooms (RC) was much less clear to most educators. A few educators did articulate that the RC approach of emphasizing student growth in a strong and safe environment could increase student learning and build stronger communities in the classroom. However, the majority of educators were uncertain of the connection between RC and PBE.

Student engagement in learning was associated with community connections

> *"[Students are] getting to know their community a lot better than they did before [CO-SEED]. For instance, there was one child I spoke with Monday, and he was all excited, and said, 'it's Warren Week, and we get to go downtown. I've never been downtown.' I think students care more about their surroundings when they've seen it."* — Warren Community Member

Many educators and community members alike claimed that PBE motivated student learning, making learning more exciting and engaging for the students. PBE, with its focus on real-world learning, made concepts more relevant to students, and increased their understanding of content. Several educators noted the higher level and greater depth of learning that could take place because of the experiential learning, especially when combined with the community involvement. Another benefit of PBE noted by educators was that it offered students different ways of learning, which was especially useful to struggling learners.

Most interviewees claimed that PBE projects increased students' awareness of and connection to the Warren community. Many people expressed the opinion that place-based projects helped students to perceive Warren as more interesting and important than they had originally thought. For instance, when a local song writer came to the music class to teach song writing students learned the music skills, and, because they were writing songs about their community, they also experienced increases in their sense of place, community, and history. The majority of community members and educators thought that students valued their hometown more than they had before CO-SEED, and that students' attachment to Warren community members and history increased because of place-based projects. These sentiments were often couched amid broader concerns about Warren's ability to stay viable in the face of external social and economic pressures.

Sustainability of place-based education was discussed with some anxiety

> *"When CO-SEED started, I think that the whole culture of the school was to question CO-SEED: 'what is this?' and 'it's way too big and overwhelming for us.' Now our school culture around CO-SEED is 'we don't want to see it go: what can we do to keep it going?'"* — Warren Educator

Most interviewees expressed apprehension about how the PBE focus would continue at the Warren Community School without CO-SEED, and particularly without the community learning coordinator (CLC) role at the school. There were, however, specific ideas generated that could help keep PBE going, such as: raising funds for a CLC, honoring

community involvement, expanding the reach of PBE into SAD40 schools, documenting projects, enlisting administrator support, and continuing mini-grants. These ideas were in various stages of research and implementation at the time this evaluation ended.

Almost every person interviewed, educator and community member alike, spoke enthusiastically about the CLC representative as an effective organizer, inspiring cheer leader, and a catalyst for the school-community relationships and PBE in general. When considering the longer term sustainability of PBE, there was some concern expressed about whether PBE could continue at the same level in the future, if and when the representative would not be present to provide the same level of support.

PLACE-BASED EDUCATION EXEMPLARS

There were many exemplary place-based projects that occurred at the Warren Community School during the tenure of the CO-SEED program. In the next section, three exemplars of place-based education will be highlighted. All three of these projects used the local community as an integrating context for learning. In addition, all of these exemplars were spoken of very highly in the evaluation interviews, both for their positive impact on students, as well as for the impact on bringing in members of the Warren community.

Warren 6th Grade Canal Projects

"The children really enjoyed it. They learned a lot about the history of Maine and the canal. And it was hands-on learning for them. They really enjoyed the activity."   *- Warren Educator*

Local history can be a powerful spark for learning. The Warren section of the Georges River Canal was the focus of place-based projects that engaged the 6th grade students for three years. This exemplar of place-based learning brought students and their families to a new level of awareness about a unique and historical feature of their town that many in the community never even knew existed.

During the first year, the students were given a tour of the Georges River Canal by a local historian. In the second year of the grant, a staff member from QLF's Center for Community GIS in Farmington came to teach the students about GIS mapping and how to make a map of the Georges River Canal sites. The last year of the grant saw an increase in activity around the canal. During school time, all of the 6th graders snowshoed out to the canal during gym class, and were given an introductory tour, taking photos of all of the significant sites. Students then did art work for the Quest booklet, passport, and stamps, did math and science while making maps, used language arts to craft poetic clues, and built their social studies knowledge by interviewing members of the historical society. During Warren Week, the rest of the students in the school searched for and found various sites along the canal, helped by the clues that had been crafted by the 6th grade class.

Local community members (e.g. journalist, historical society member, GIS expert, and parents) helped the CO-SEED Community Learning Coordinator with many of the lessons and activities.

"I am so impressed by the Warren Canal project. I got a chance to go on the canal tour and it just has everything in it. It has our town, our history, hands-on learning, it makes it exciting for students, it's a little mysterious, but yet at the same time if you're doing it right, they're learning about the history of Warren."   *- Warren Community Member*

Warren K-1st Grade Salad Party

> *"We harvested all the salad greens, and we offered it out at a lunch for 3rd and 4th graders. I think that 90% of the kids came up to get salad, and then tons came up for seconds. One boy came up for fourths. It just felt like this is a salad culture in a way."*   *- Warren Educator*

Food can be fun *and* educational. The salad growing and harvesting project at the Warren Community School was an exemplar of place-based education in that it involved the community, and engaged students in learning.

In the project, the Kindergarten and 1st grade classes started salad greens from seed under grow lights in their classrooms in the winter time. Local farmers helped the students to plant their seeds. Every week, the students recorded their observations about the plant growth. When the greens were ready to be harvested in the spring, they invited in their families to a harvest celebration. It was a salad eating party! Students harvested, washed, and spun the salad greens in preparation for the salad feast. Family members brought extra salad ingredients, and students and families ate salad together.

The students were excited and engaged in each phase of the project, including eating the salad (a first for some students). The local farmers also expressed their excitement about being involved with a school in this way. This project was relatively easy to replicate each year, and is a fairly simple one for teachers to take on.

> *"One of the things that the kids came up with [through the CO-SEED program], is that they really want to improve the food choices here at the school. And certainly the work that's happened with CO-SEED of getting kids to learn how to eat salad greens that we've been growing has introduced children to food that they've never had before. To see the enthusiasm they have for eating it, and then also taking some home to their parents, has been really a good thing."*   *- Warren Educator*

Warren Visiting Artists Project

"Two local ballroom dance instructors taught the 4th graders how to waltz and swing. The culminating event was an evening of dancing, and was attended by over 150 people. Students performed, and everyone was invited to have a lesson. Grandparents were waltzing with grandchildren, teachers with students, friends with friends. Everyone had a blast." - Warren Educator commenting on P.E.

Arts bring people together. By weaving local artists into music, art, and gym lessons, these programs became place-based exemplars engaging students, artists, teachers, and the Warren Community in learning together. For example:

Cindy Kallet, a folk singer/songwriter, worked with the 5th graders to compose original songs based on the history and features of Warren. They performed one of their songs during the opening to WAVE, the Warren community's Vision to Action Forum.

Inspired by the Empty Bowls Project, Nancy Button, a ceramicist with her own studio and store in Warren, taught the 4th and 5th graders how to make bowls for WAVE. To create enough bowls they held a Saturday lesson for community members which over 80 people attended. The next year, as part of a Japan-themed week at the school, Nancy helped 4th graders learn to make tea bowls, which were given out as part of the tea ceremony during the week's culminating community event.

Garvin Morris, a children's book author and illustrator, brought his work on Dump Dog to 4th grade art class. By sharing and demonstrating his illustration process, he inspired students to create their own characters, which they displayed at a community opening of their own special gallery, an evening event which Garvin attended.

"Grades 4-6 enjoyed a wonderful presentation by renowned local artist Gordon Bok as part of their unit on American Folk Music. He really inspired the children with his songs, his playing, his respectful consideration of their questions, and his stories. In turn he enjoyed their playing - 25 students surprised him by playing his music on their guitars."
*   - Warren Community Member*

SUSTAINABILITY OF PBE IN WARREN AND SAD40

Where TO GO from here?

The Warren Community School came a long way in establishing place-based education as a foundation of the school. However, the sustainability of place-based education was anxiously questioned among the school community. The school community and CO-SEED staff realized that in order to sustain the focus on place-based education at Warren, it would be most likely to happen as part a more inclusive outreach effort throughout the district. Therefore, during the spring of 2008, the Warren CO-SEED staff held a meeting with two primary purposes:

❖ To explore district-wide interest in the integration of place-based education; and
❖ To discover the types of projects that existed presently within the district.

The participants at the meeting were invited to be interviewed as part of the final CO-SEED Warren evaluation in the late spring of 2008. Those participants who elected to be interviewed were educators especially interested in place-based education. The findings of those collective interviews and additional interviews of select SAD40 principals and district administrators, Warren Community School educators with relevant information, and CO-SEED staff members are summarized in this section of the report.

Despite a variety of challenges, educators across the district have implemented place-based education (PBE) projects, and those interviewed expressed interest in deepening PBE in their schools. Educators recognized the value of PBE both for their own teaching, and for their students. In addition, SAD40 administrators acknowledged PBE as a valuable and potentially unifying theme for schools within the district. The time could be ripe for PBE to become a more central focus throughout the district.

Additional Themes Included:

- ➢ SAD40 educators were faced with multiple challenges to place-based education implementation within their curriculum.

- ➢ SAD40 educators stated a variety of reasons for doing place-based education.

- ➢ A foundation of diverse place-based projects existed within the district that utilized agricultural resources, the local environment, local history, the local neighborhood and community, and the school grounds.

- ➢ The impacts of place-based education permeated beyond educators to students, community members, and school and community relationships.

- ➢ Communication between educators, principals, district administrators and community members seemed to be key for place-based education expansion and centrality at SAD40.

Multiple challenges to place-based education implementation

"I think that I'd like to do it, but time is the element here. I get real excited about some of these things, and then the day to day takes over."   *- SAD40 educator*

Educators faced multiple challenges to PBE implementation throughout the SAD40 district. Several of the obstacles to conducting place-based education reported by educators were structural in nature. Some of these structural challenges included: lack of planning time, lack of available funding, and external pressures to target curricula toward standardized test preparation. Additionally, some educators reported personal challenges to PBE, such as low levels of comfort for doing non-traditional teaching, and a general lack of understanding of how to locate resources and volunteers.

Educators also discussed obstacles to implementing PBE based on student concerns. During the CO-SEED spring meeting, issues were raised over student preparedness for PBE and student safety as additional reasons for not implementing PBE.

Variety of reasons for doing place-based education

"The kids loved the experience, it's a hands-on class, and…some of my kids…who probably wouldn't survive with a textbook and a chalkboard actually thrive under these settings."
                                                                                   -SAD40 Educator

Despite the many challenges that educators faced within the district, some educators were involved in doing PBE. All SAD40 educators interviewed reported involvement in a variety of place-based projects. These educators attributed their use of PBE primarily to their

personal interest in and knowledge of place-based learning and/or the environment. Educators also reported that their involvement in PBE provided a venue for increased teacher collaboration.

For some educators, involvement in place-based projects fulfilled a personal vision for teaching and added personal enjoyment to their teaching.

Most educators claimed that PBE was beneficial to their students. They described how place-based learning connected the curriculum to the real world, and added an experiential and often interdisciplinary approach to teaching the various subject areas.

Foundation of diverse place-based projects existed

> *"I would consider this one of the better place-based [projects] because it allows students to talk to their family and some of the older members of the community and find out what life used to be like, and where the kind of sacred spots [were], where history was actually made."*
>
> *–SAD40 educator*

A range of place-based education projects existed within the district. The projects integrated a variety of local resources including: agricultural resources, the local environment, local history, the local neighborhood and community, and the school grounds.

Sample projects included: the Seed-Savers program at Medomak Valley High School, studying apple trees on-site and Bats of Maine at Union Elementary, the Sheep to Shawl Project and the Community History Project at Friendship Village School, Water Wonder Day at Prescott Elementary, Wabanki Studies and the Neighborhood Mapping Project at Miller Elementary School, and the Warren Canal Quest at Warren Community School.

Impacts of place-based education permeated beyond educators

> *"I got enthused about doing [place-based education], which made me get my kids enthused. And it brought the community in."*   *–SAD40 educator*

Respondents noted that the benefits of using PBE reached beyond educators to include students, the community, and school and community relationships. Educators reported that students were more connected to their community, and that PBE helped to engage students in learning by making the subjects more significant, meaningful, and fun to them. Educators also claimed that learning met the diverse needs and learning styles of students, and often decreased behavior problems.

Interviewees claimed that including place-based learning in classrooms increased involvement of community members in the schools. In this way, as educators at the Warren CO-SEED meeting stated, "[PBE] created more opportunities for more kinds of people to contribute to the school and student's lives." Some educators reported that stronger school and community relationships may have brought parents into the school and created a connection to home life for students. Additionally, educators described how community members became connected to the school and individuals in the community felt welcomed and needed.

Communication as the key for PBE expansion and centrality

"And is [place-based education] a core value? And do we want to integrate [PBE] into our daily…cultures? I don't think that we have asked that question."   -SAD40 administrator

Communication seemed to be a key element for the future of PBE in the SAD40 district. Administrators and educators alike recognized the importance of promoting a clearer understanding of PBE to all educators and schools in the district. The purpose of this increased clarity would be twofold: 1) to gauge educators' current levels of conducting PBE; and 2) to assess interest in having PBE as a core value in the schools and district.

Administrators identified the importance of recognition and celebration of the uniqueness that each of the five communities within the SAD40 district had to offer, and suggested that this could be a first step in increasing communication and relationships among schools within the district.

Additionally, educators identified the importance of PBE project documentation and recognition and celebration of individuals involved with place-based projects. Both educators and administrators realized the need for greater assistance and coordination of place-based projects at the school and district level. Two ideas included: creating community learning coordinator positions throughout the district, and providing a structure for educators to share ideas with each other.

CONCLUSIONS AND RECOMMENDATIONS
Final reflections for this evaluation

The legacy of CO-SEED in Warren was that of strengthening the connection between the school and the community. With the help of CO-SEED, place-based education began to become more integral to the school culture. Since PBE connected learning to the community, community members were welcomed into the schools in a variety of roles. Simultaneously, as a spin off continuation of the Vision to Action Forum, Warren community members formed their own committee (WAVE) to engage more citizens in Warren's community life, its volunteer groups, governance, and school . This legacy is particularly poignant in contrast to the tense and confrontational relationship sparked by a particularly controversial incident that occurred on the school grounds just as CO-SEED began.

PBE has taken root in Warren, but the future vigor of PBE is uncertain. The combination of support amongst WCS staff, Warren community members, and SAD40 administrators may actually make the situation ripe for long-term sustainability of PBE if resources and vision emerge to make it so. At the end of the data collection period for this report, there was a decision made to continue the community learning coordinator position for the following year, but with reduced hours so that the coordinator could be available for other schools within the district as well. This decision, which effectively decreases the dose of CO-SEED for the upcoming year, is important in the light of the findings of this report that the Warren school culture was just beginning to show signs of a cultural shift towards having a central focus on PBE. How much "dose" is necessary to maintain the progress that the CO-SEED program has helped initiate remains an open question.

Recommendations for the Warren Community:

- ✓ Strengthen opportunities to continue building on school-community connections
    - o Have a position at the school for someone to recruit, "train," and support volunteers. There could be an orientation to the school, its policies, and procedures.
    - o Have a position at the school for someone to find experts in the community to work with students on place-based projects (local farmers, artists, writers, gardeners, historians, etc.).
- ✓ Build in regular planning time for educators to collaborate on place-based education.
    - o Make regular and frequent planning time for educators within school schedules.
    - o Provide opportunities for educators across the district to share ideas about place-based education projects.

✓ Continue place-based education as a priority beyond elementary school.
  o In order for PBE to reach its full effectiveness, it should be extended into middle and high school.

Recommendations for the SAD40 District:

✓ Engage in a district-wide conversation to ask the essential questions of how the district defines place-based education and whether place-based education is or should be part of the schools' core values.

✓ Provide resources (i.e. time and support) for educators less experienced in PBE to start small place-based projects that involve using local resources and the local community.

✓ Document PBE projects, and recognize and celebrate the efforts of all individuals involved with place-based projects.

✓ Involve school, district and community members in a needs-based discussion focused on the topic of place-based integration and continuation at SAD40.

APPENDIX A - TABLES

Table W2. Summary of Average Pre-Post Survey Changes Between 2005 and 2008 for CO-SEED Educator Surveys from the Warren Community School Site

Variable *(items included)*	Spring 2005			Spring 2008			
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	$\triangle\bar{X}$
Program implementation *(d4)*	7	1.7	0.8	21	2.0	0.6	+.3
Other place-based ed. training *(calculated from d1v-y)*	18	0.1	0.3	22	0.3	0.4	+.2
Overall educator practice *(overall module=p1,p2,p3,p4,p5,p6,l1,l2,l3,l4,l5,l6)*	18	2.7	0.3	28	3.0	0.4	+.3*
Use of local resources *(L module = l1,l2,l3,l4,l5,l6)*	15	2.4	0.7	28	2.9	0.8	+.5*
Use of local places *(llp index = l1,l4)*	13	2.8	0.9	26	3.3	0.6	+.5*
Use of local people *(llpeop index = l2,l5)*	14	2.3	1.0	27	2.9	0.8	+.6*
Service learning *(lsl index = l3,l6)*	13	2.4	0.8	18	2.4	0.9	-
Improving educator craft *(P module = p1,p2,p3,p4,p5,p6)*	18	2.9	0.3	28	3.0	0.5	+.1
Meeting curricular goals *(pcg index = p1,p4)*	13	3.1	0.3	25	3.3	0.4	+.2
Educator collaboration *(ptc index = p2,p5)*	18	2.8	0.4	28	2.8	0.5	-
Educator engagement/growth *(pteg index = p3,p6)*	17	2.7	0.7	27	3.3	0.6	+.6**
Reports of student performance *(X module = x1,x2,x3,x4,x5,x7,x9,x10,x11,x12)*	18	2.7	0.4	28	3.1	0.4	+.4**
Student engagement in learning *(xsel index=x1,x5,x12)*	18	3.2	0.4	27	3.3	0.4	+.1
Student civic engagement *(xsce index = x3,x7)*	17	2.6	0.6	28	3.0	0.5	+.4**
Student stewardship behavior *(xssb index = x4,x8)*	16	2.1	0.5	24	2.7	0.5	+.6**
Reports of whole school improvement *(W module = w1,w2,w3,w4)*	18	2.5	0.5	28	2.9	0.5	+.4**
School culture, people *(wpeop index = w1,w3)*	18	2.8	0.5	28	3.1	0.5	+.3*
Environmental quality *(wenv index = w2,w4)*	16	2.1	0.6	28	2.7	0.7	+.6*
Perceptions of community improvement *(Y module = y3,y4,y5,y6,y7,y8,y9,y10)*	18	2.9	0.4	28	3.3	0.4	+.3**
Community civic engagement *(yce index = y3,y6)*	18	3.0	0.5	27	3.4	0.5	+.4**
Community environmental quality *(yeq index = y4,y7)*	11	2.6	0.5	27	3.2	0.6	+.6**
Community planning/decision process *(ypdm index=y5,y8)*	11	2.7	0.5	26	3.2	0.4	+.5**
General community quality *(ygen index = y3,y4,y5)*	14	2.8	0.6	26	3.2	0.5	+.4*
Program adds value to community *(ypav index=y6,y7,y8,y9)*	15	3.0	0.5	27	3.4	0.4	+.4*
Connection to community *(CONCOM module = l1,l2,l4,l5,x3,x7,y3,y6)*	18	2.7	0.5	28	3.2	0.4	+.5**

NOTES: *Table row shading loosely represents the level of data reduction, i.e. modules are light gray, overall modules are dark gray. Results of particular interest are shaded purple. Outcome scale range = 0 to 4;* **N** *= sample size;* **X** *= mean;* **SD** *= standard deviation;* $\triangle$**X** *= change in mean between pre- and post- measures; * = significant at p < .05; ** = significant at p < .01.*

Table W3. Summary of Data for 2005-2008 CO-SEED Educator Surveys, Warren Com. School, Correlating CO-SEED Dose to CO-SEED-Related Outcomes (N=105)

Variable *(items included)*	N	$\overline{\text{X}}$	M	SD	△R²	F	df
Program implementation *(d4)*	73	1.9	2.0	0.8	-	-	-
Other place-based ed. training *(calc from =d1v-z)*	95	0.2	0	0.5	.06*	4.0	65
Overall teacher practice *(overall module=p1,p2,p3,p4,p5,p6,l1,l2,l3,l4,l5,l6)*	105	2.9	2.9	0.4	.12**	9.2	71
Use of local resources *(L module = l1,l2,l3,l4,l5,l6)*	101	2.8	3.0	0.8	.01	1.0	70
Use of local places *(llp index = l1,l4)*	67	3.0	3.0	0.8	.03	1.9	67
Use of local people *(llpeop index = l2,l5)*	67	2.8	3.0	0.8	.06*	4.0	68
Service learning *(lsl index = l3,l6)*	80	2.5	2.5	0.9	.00	0.2	57
Connecting to community *(concom = l1,l2,l4,l5,x3,x7,y3,y6)*	105	3.0	3.0	0.5	.09*	6.9	71
Improving teacher craft *(P module = p1,p2,p3,p4,p5,p6)*	105	2.9	3.0	0.4	.19**	16.1	79
Meeting curricular goals *(pcg index = p1,p4)*	65	3.2	3.0	0.5	.06*	4.3	63
Teacher collaboration *(ptc index = p2,p5)*	77	2.7	2.5	0.5	.00	0.0	71
Teacher engagement/growth *(pteg index = p3,p6)*	70	3.0	3.0	0.6	.17**	14.2	70
Reports of student performance *(X module = x1,x2,x3,x4,x5,x6,x7,x8,x9,x10,x11,x12)*	105	2.9	3.0	0.4	.01	0.4	71
Student engagement in learning *(xsel index=x1,x5,x12)*	77	3.1	3.0	0.4	.00	0.0	71
Student civic engagement *(xsce index = x3,x7)*	75	2.8	3.0	0.5	.03	2.2	70
Student stewardship behavior *(xssb index = x4,x8)*	72	2.4	2.3	0.7	.02	1.2	66
Benefits students w/learning challenges *(item=x11)*	82	3.4	3.0	0.6	.01	0.4	57
Reports of whole school improvement *(W module = w1,w2,w3,w4, w5,w6,w7)*	105	2.7	2.9	0.5	.01	1.0	71
School culture, people *(wpeop index = w1,w3, w5, w6)*	77	2.9	3.0	0.5	.03	2.4	71
Environmental quality *(wenv index = w2,w4)*	74	2.4	2.5	0.7	.00	0.0	69
PBE cultural fabric *(item = w5)*	80	2.9	3.0	0.7	.00	0.3	60
Perceptions of community improvement *(Y module = y3,y4,y5,y6,y7,y8,y9,y10)*	105	3.1	3.1	0.4	.08*	5.8	71
Community civic engagement *(yce index = y3,y6)*	77	3.2	3.0	0.5	.00	0.4	71
Community environmental quality *(yeq index= y4,y7)*	67	3.0	3.0	0.5	.01	1.0	65
Com. planning/decision process *(ypdm index= y5,y8)*	64	3.0	3.0	0.5	.00	0.1	65
General community quality *(ygen index = y3,y4,y5)*	73	3.0	3.0	0.5	.02	1.1	70
Program adds value to com. *(ypav index=y6,y7,y8,y9)*	73	3.2	3.0	0.5	.04	2.4	66
Community improvement projects *(item = y10)*	89	3.1	3.0	0.7	.13**	9.9	65

NOTE: *Table row shading loosely represents the level of data reduction, i.e. modules are light gray. Results of particular interest are shaded purple.* **N** = *sample size;* **X** = *mean;* **M** = *median;* **SD** = *standard deviation;* △R² = *% of outcome variability accounted for by dose composite;* **p** = *statistical significance test, threshold < .05/(# of component indices); * = significant at p < .05; ** = significant at p < .01;* **F** = *regression test;* **df** = *degrees of freedom*

Table W4. Summary of Data for 2007-2008 CO-SEED Educator Surveys, Warren Com. School, Correlating CO-SEED Dose to CO-SEED-Related Outcomes (N=28)

Variable *(items included)*	N	$\overline{X}$	M	SD	△R²	F	df
Program implementation *(d4)*	21	2.0	2.0	0.6	-	-	-
Other place-based ed. training *(calc from =d1v-z)*	22	0.3	0.0	0.4	.07	1.1	15
Overall teacher practice *(overall module=p1,p2,p3,p4,p5,p6,l1,l2,l3,l4,l5,l6)*	28	3.0	3.0	0.4	.10	2.2	17
Use of local resources *(L module = l1,l2,l3,l4,l5,l6)*	28	2.9	2.9	0.8	.02	0.3	19
Use of local places *(llp index = l1,l4)*	28	3.3	3.5	0.6	.02	0.4	18
Use of local people *(llpeop index = l2,l5)*	27	2.9	3.0	0.8	.06	1.1	19
Service learning *(lsl index = l3,l6)*	18	2.4	2.5	0.9	.05	0.7	13
Connecting to community *(concom = l1,l2,l4,l5,x3,x7,y3,y6)*	28	3.2	3.1	0.4	.12	2.5	19
Improving teacher craft *(P module = p1,p2,p3,p4,p5,p6)*	38	3.0	3.2	0.5	.14†	3.2	19
Meeting curricular goals *(pcg index = p1,p4)*	25	3.3	3.5	0.4	.02	0.3	18
Teacher collaboration *(ptc index = p2,p5)*	28	2.8	3.0	0.5	.19*	4.6	19
Teacher engagement/growth *(pteg index = p3,p6)*	27	3.3	3.5	0.6	.34**	9.6	19
Reports of student performance *(X module = x1,x2,x3,x4,x5,x6,x7,x8,x9,x10,x11,x12)*	28	3.1	3.1	0.3	.04	0.8	19
Student engagement in learning *(xsel index=x1,x5,x12)*	27	3.3	3.3	0.4	.04	0.7	19
Student civic engagement *(xsce index = x3,x7)*	28	3.0	3.0	0.5	.10	2.1	19
Student stewardship behavior *(xssb index = x4,x8)*	24	2.7	2.8	0.5	.16†	3.2	17
Benefits students w/learning challenges *(item=x11)*	24	3.6	4.0	0.5	.00	0.0	17
Reports of whole school improvement *(W module = w1,w2,w3,w4, w5,w6,w7)*	28	2.9	2.9	0.5	.04	0.8	19
School culture, people *(wpeop index = w1,w3, w5, w6)*	28	3.2	3.3	0.5	.04	0.8	19
Environmental quality *(wenv index = w2,w4)*	28	2.7	3.0	0.7	.00	0.0	19
PBE cultural fabric *(item = w5)*	27	3.3	3.0	0.5	.00	0.0	18
Perceptions of community improvement *(Y module = y3,y4,y5,y6,y7,y8,y9,y10)*	28	3.3	3.3	0.4	.08	1.7	19
Community civic engagement *(yce index = y3,y6)*	27	3.4	3.5	0.5	.01	0.1	19
Community environmental quality *(yeq index= y4,y7)*	27	3.2	3.5	0.6	.05	0.9	18
Com. planning/decision process *(ypdm index= y5,y8)*	26	3.2	3.3	0.4	.00	0.0	18
General community quality *(ygen index = y3,y4,y5)*	26	3.2	3.3	0.6	.03	0.5	18
Program adds value to com. *(ypav index=y6,y7,y8,y9)*	27	3.4	3.3	0.4	.08	1.5	18
Community improvement projects *(item = y10)*	24	3.0	3.0	0.8	.06	1.0	17

NOTE: *Table row shading loosely represents the level of data reduction, i.e. modules are light gray. Results of particular interest are shaded purple.* **N** *= sample size;* **X** *= mean;* **M** *= median;* **SD** *= standard deviation;* △**R²** *= % of outcome variability accounted for by dose composite;* **p** *= statistical significance test, threshold < .05/(# of component indices);   * = significant at p < .05;   ** = significant at p < .01;* **F** *= regression test;* **df** *= degrees of freedom*

APPENDIX B – EVALUATION PLAN 2007-2008

2007-08 CO-SEED Evaluation Plan

Category	Evaluation Questions and/or Descriptions	Evaluation Strategy/Activity	Personnel Accountable	When	Approx. % of eval plan
1. Surveys	*"Does "dosage" of CO-SEED correlate with reported changes in educator practice and/or student performance?"*	a) Administer Edu & Stu surveys to 2 Maine sites (.5 day/site)	CO-SEED staff implement; RBK lead	Spr 08	2%
	NOTE: Paper is the default approach for survey administration. On-line administration is certainly a possibility, but be sure to coordinate with PEER first.	b) Enter data from Edu & Stu surveys at 2 Maine sites (assumes approx. 300 surveys)	Grad. Res. Assist. implement; RBK lead	Spr 08	4%
		c) Download, organize, & prepare for analysis data from Edu & Stu surveys at 2 Maine sites	RBK lead; Grad. Res. Assist., MD support	Spr 08	6%
		d) Analyze, generate Edu & Stu data contents to integrate into formal product report for 2 Maine sites	RBK lead, PEER support	Sum 08	9%
2. Interviews	*"What have been the biggest success and obstacles overcome for CO-SEED at this site over the last three plus years?"*	e) Fall check-in interviews at 2 Maine sites (.5 days Warren, 1.5 days VH)	RBK lead implement; Jen (Warren), David (VH) lead planning/schedule	Oct 07	3%
	"What (site-specific, preliminary) evidence is there of CO-SEED's impact on students, educators, and/or the community?"	f) Wrap up interviews at 2 Maine sites (1.5 day/site)	MD lead implement; RBK support; Jen (Warren), David (VH) lead planning/schedule	Apr 08	10%
	"In what ways have CLC's been impacted in their ability to transfer CO-SEED ideas to other sites?"	g) Plan, travel, transcribe, and analyze Fall check-in and Spring wrap up interviews at 2 Maine sites, generate Utilization Preview. (5 days/site)	RBK lead Fall check-in; MD lead Spring wrap up; Grad. Res. Assist. support	Fall 07/ Spr 08	24%
		h) Generate final formal reports (separate for each site), integrating/ summarizing all data from three plus years. (3 days/site)	MD lead; RBK, PEER support	Sum 08	10%
3. Other	*"To what extent (if at all) does CO-SEED contribute to increased student academic achievement in local measures of reading and writing?"*	i) Organize, & prepare for analysis data from Warren reading, writing achievement investigation	MD lead; PEER support	ongoing	9%
		j) Analyze, generate Warren reading, writing data contents to integrate into formal product report for Warren site	MD lead; PEER support	Sum 08	11%
	"Systematic reflection/documentation of impacts by on the ground staff.	k) Monitor monthly tracking forms, include in reports as appropriate (.5 days/site)	MD	ongoing	2%
4. Program Staff Support	*"What are realistic expectations and plans for generating useful evaluation results within existing resource constraints?*	l) Revise current & develop future evaluation overviews	MD lead, PEER support	Fall 07	2%
	Meetings, email, conversations with staff to maximize value from evaluation activities.	m) General, on-going support for utilization of evaluation results and program documentation	MD lead, PEER support	ongoing	3%
	Integrating plans with budgets, accounting.	n) Administrative and financial management support	AAP	ongoing	4%
					100%

APPENDIX C – EDUCATOR SURVEY

CO-SEED Teacher/Staff Survey

We recognize that teachers and school staff have many demands on their time and we greatly appreciate you completing this survey. Your frank feedback is very valuable for helping to improve the CO-SEED project. We also recognize that CO-SEED is not the only factor affecting your students. We appreciate your best guess on any items that may seem a little broad or not directly connected to the CO-SEED. This survey is a key part of a larger effort to measure the impact of place-based education programs, and so the question numbers and letters are not always in sequence. _Please do not leave any blanks._ **THANK YOU!**

Your individual responses will be seen only by the evaluation team, and your name will NOT be used in any report, publication, or discussion without your prior permission.

Your School _____ Your Name _____ Today's Date _____

How much do you disagree or agree? For each item, please circle only _one_ number that best matches your opinion.	Strongly Disagree	Tend to Disagree	Tend to Agree	Strongly Agree	Not sure or N/A
For items P1–P6, if you are not a classroom teacher, think of replacing the words "I" or "me" with "the teachers I work most closely with."					
P.1 CO-SEED helps me meet local, district and/or state learning standards.	1	2	3	4	0
P.2 I collaborate with other teachers for curriculum planning.	1	2	3	4	0
P.3 I feel energized and confident while teaching about the local environment and/or community.	1	2	3	4	0
P.4 It is difficult to cover traditional subjects through CO-SEED.	1	2	3	4	0
P.5 The curriculum in our school is well-coordinated throughout the grade levels.	1	2	3	4	0
P.6 CO-SEED has helped me become a better teacher.	1	2	3	4	0
Y.3 In general, people in our community are actively involved in trying to make the community a better place to live.	1	2	3	4	0
Y.4 Our community is environmentally healthy.	1	2	3	4	0
Y.5 The key decision makers in our community have a good plan for addressing the important needs in our community.	1	2	3	4	0
Y.6 CO-SEED gets people (young and old) more involved in solving real life problems in our community.	1	2	3	4	0
Y.7 The quality of the environment in our community is improving as a result of CO-SEED.	1	2	3	4	0
Y.8 Through CO-SEED, students are collaborating with important decision makers in our community.	1	2	3	4	0
Y.9 CO-SEED may be nice, but it doesn't address real needs in our community.	1	2	3	4	0
Y.10 I am (or plan to become) actively involved in projects to improve the social and/or environmental quality of our community.	1	2	3	4	0
W.1 Our school staff shares a common vision for education about the environment and community.	1	2	3	4	0
W.2 Our school is environmentally healthy.	1	2	3	4	0
W.3 The sense of community within our school is fairly weak or non-existent.	1	2	3	4	0
W.4 Our school is active in natural resource conservation (water, energy, soil, air, solid waste).	1	2	3	4	0
W.5 Place-based education is part of the cultural fabric of our school.	1	2	3	4	0

(Please complete all 4 pages of this survey)   CO-SEED Edu v4c   Page 1 of 4

How much do you disagree or agree? For each item, please circle only *one* number that best matches your opinion.	Strongly Disagree	Tend to Disagree	Tend to Agree	Strongly Agree	Not sure or N/A
Items X1-X12 refer to the group of students that you know best or work most closely with in your school or project.					
x1 Our students are enthusiastic about learning.	1	2	3	4	0
x2 CO-SEED may be nice, but it doesn't really improve student academic achievement.	1	2	3	4	0
x3 Through their schoolwork, students gain a sense of responsibility for improving the local community and environment.	1	2	3	4	0
x4 Through their schoolwork, students regularly take action to protect and improve the environment.	1	2	3	4	0
x6 Students prefer CO-SEED-style activities to more traditional-style school activities.	1	2	3	4	0
x6 I am satisfied with the quality of education in our school.	1	2	3	4	0
x7 Students have a strong connection to the community where our school is located.	1	2	3	4	0
x8 At home or outside of school, students regularly take action to protect and improve the environment.	1	2	3	4	0
x9 Standardized test scores are an accurate indicator of student academic achievement.	1	2	3	4	0
x10 CO-SEED helps students increase their scores on standardized tests.	1	2	3	4	0
x11 CO-SEED is particularly beneficial for students with learning challenges.	1	2	3	4	0
x12 Students are self-directed in their work on the CO-SEED project.	1	2	3	4	0

For each question, please circle only *one* number that best matches your opinion.

How often do these things happen? Items L1-L6 refer to the classrooms that you know best or work most closely with.	Two days per year or less	Three to six days per year	About one day a month	One day a week or more	Not sure or N/A
L1 The school building and grounds (places outside of the classrooms) are used as places for learning.	1	2	3	4	0
L2 Parents and/or other community members work directly with students on school-related projects.	1	2	3	4	0
L3 As part of school, students work on real-world problems in their community, school buildings and/or school yard.	1	2	3	4	0
L4 The content of classroom assignments and homework is directly connected to the local natural and/or urban environment.	1	2	3	4	0
L5 Students learn about and/or interact with local cultural heritage, history and people through their schoolwork.	1	2	3	4	0
L6 Students do community volunteering and/or service-learning work to satisfy their educational requirements.	1	2	3	4	0

(Please complete all 4 pages of this survey)   CO-SEED Edu v4c   Page 2 of 4

D.1 For the following items, please put a NUMBER in the box below each activity description to indicate how many times you have participated in that CO-SEED-related activity OVER THE YEARS. Please type the actual number instead of spelling it. For example: "1" not "one", (but don't type the quotation marks). Put a 0 in the box if you have not taken part in that activity or if it does not apply to you. If the number of times is large or hard to quantify, just put your best guess. The idea here is to try and get an overall estimate of your level of involvement with CO-SEED and which types of support are most used. It might help to read through the whole list of activities first to jog your memory.

	Number		Number
a. CO-SEED summer institutes		k. conversations with community members or parents for CO-SEED business	
b. CLC staff leading activities for my whole classroom		l. activities led by CO-SEED sponsored community partners or parents	
c. CLC staff supporting/helping with lessons I lead in my classroom		m. meetings/conversations with Antioch staff	
d. quick, informal meetings or conversations with CLC staff		n. interviews with CO-SEED evaluators	
e. CLC or Antioch staff providing me with curriculum or content resources		o. other CO-SEED activity (please specify)	
f. school staff meetings or in-service days about CO-SEED		**the next four items (v-y) refer to other place-based or env. education activities NOT directly associated with CO-SEED**	
g. attended monthly SEED Team (or Theme Team) meetings		v. non-CO-SEED college or graduate level courses related to place-based or env. ed.	
h. CO-SEED sponsored release time for professional development		w. non-CO-SEED workshops/conferences/ seminars related to place-based or env. ed.	
i. number of days an Antioch intern was helping in my classroom		x. non-CO-SEED place-based or env. ed. books/curriculum guides I've read	
j. applied for CO-SEED mini-grant		y. non- CO-SEED place-based or env. ed. articles/lesson plans I've read/studied	

D.1z Of the non-CO-SEED place-based or environmental education activities you listed in D.1v-y above, approximately what portion of these did you do *as a result of* being inspired by CO-SEED:
  a. none
  b. about a quarter
  c. around half
  d. maybe three quarters
  e. all
  f. I'm not sure/couldn't guess

For questions D3-D8, please circle the one answer that most closely applies.

D.3 For the current school year, I have had (or will have) my students working on CO-SEED-related activities:
  a. two days per year or less
  b. three to six days per year
  c. about one day a month
  d. one day a week or more
  e. I'm not sure/ doesn't apply to me

D.4 In terms of my overall curriculum plan for the current school year, CO-SEED is:
  a. a very small part of it, if at all
  b. a significant but contained unit
  c. a major part of it
  d. the core organizing structure
  e. I'm not sure/ doesn't apply to me

(Please complete all 4 pages of this survey)   CO-SEED Edu v4c   Page 3 of 4

D.6 What subject do you teach:
- a.   Not a teacher/ doesn't apply to me
- b.   elementary classroom, integrated
- c.   math
- d.   science
- e.   social studies/ history
- f.   English
- g.   foreign language
- h.   physical education or health
- i.   art or music
- j.   technology
- k.   Other: _____
- l.   after school or other non-formal education project leader

D.7 My role in the school is:
- a.   specialist
- b.   student aide or paraprofessional
- c.   administrator
- d.   classroom teacher: elementary
- e.   classroom teacher: middle school
- f.   classroom teacher: high school
- g.   other:_____

D.8 For how many school years have you been working in this school? (count the current school year as one)
- a.   First year here
- b.   2-3 years
- c.   4-5 years
- d.   6 or more years

E.1 Please feel free to comment on your responses or other interests/concerns about CO-SEED.

The End. Thank you again for taking the time to fill out this survey!

Please return this survey in the envelope provided to a CO-SEED staff person or to:
CO-SEED Evaluation, 272 Eaton Rd., Swanzey, NH 03446 or email to Michael@PEERassociates.net.

(Please complete all 4 pages of this survey)   CO-SEED Edu v4c   Page 4 of 4

APPENDIX D – EDUCATOR INTERVIEW GUIDE 07-08

Interview Guide, Spring 08, Warren

- *I'm an outside evaluator with PEER Associates, hired by CO-SEED for the last several years to help improve and sustain the program. This IS an evaluation of the CO-SEED program, but is definitely NOT an assessment of your performance.*
- *Main purpose today is to understand how, if at all, the school has changed as a result of CO-SEED (including its role within and relationship to the community), and to identify key project successes.*
- *Your participation in this interview is entirely voluntary. We can stop at any time (including now).*
- *Your responses are confidential in that names are never used. Quotes are used. Only evaluation staff will see raw data. The aim is to help you feel comfortable offering critical perspectives if you have them, because that is where some of the most useful learning comes from (like the way contrast between dark and light can add clarity to a photo or painting).*
- *Data from these interviews will be systematically analyzed (probably transcribed), for inclusion in a final report provided to CO-SEED staff (who will probably circulate it).*
- *Request permission to record, take notes, transcribe.*
- *Questions or concerns? (e.g. voluntary, confidential, purpose, use)*

Warren Adults

1) **What is your connection to the school? [STAFF]: How would you describe the current culture of the school? [COMMUNITY]: How would you describe the current relationship between the school and community? [ALL]: In what ways, if at all, has the culture of this school/community changed in the last three years?** *(Additional prompts: What's an example of something about the school that was better in the past than it is today? What about something that has improved? What have been the most important events or trends in the community over the last couple years that have affected the context of school operations*

2) **What kind of future would you like to see for place-based learning at Warren and in the district** (definition: engaging community members in hands-on, project-based learning in different subject areas) ?

    (Additional prompts: What is most likely to be sustained? Who, if anyone, will carry the torch of place-based education here? What do you like about PBL and why would you be willing to take part in it? What might CO-SEED have done better to enhance the future of place-based education here?)

3) **Please describe your involvement in these projects [see separate sheet]? (Which ones? What was your role?) What important projects happened at the school or between the school and community that are missing from this list?** *(Additional prompts: What stands out about this/these project(s) Can you think of a small, specific instance that really captures an important essence of this/one of these project{s}? What is something CO-SEED should be careful to NOT claim credit for?)*

4) **[STAFF]: We would like to hear your thoughts about the relationship between Differentiated Instruction (DI) and PBE. To what extent has doing PBE helped or hindered you with differentiating instruction in your classroom?** *(Additional prompts: Do the goals of DI and PBE enhance or get in the way of each other? How, if at all, has direct support from CO-SEED (e.g. Sasha, mini-grants) made a difference?*

5) **[STAFF]: In addition to DI, we are also curious about the relationship between PBE and Responsive Classrooms. In your view, what has been the intersection of PBE and RC approach in your classroom?** *(Additional prompts: How have your experiences with PBE contributed to or been a part of the RC approach? How, if at all, has the CO-SEED program contributed to the mix?)*

6) **Would you say that the range of place-based and community-based work in the last three years has had more impact on students, teachers, or the community?** *(Additional prompts: Why? Are there certain sub-groups that have benefited more than others from focusing on PBE?)*

7) **Is there anything else you would like to share with me?** *(Additional prompts: Summaries? Main points you'd like to reinforce? Anything we missed?)*

THANK YOU!!!

Other SAD40 Adults

1) **What examples of current or recent projects or activities with a community-based/local theme or focus are you involved with, or do you know about?**

2) **To what extent do (you/the teachers in this school) use local themes and subjects in your/their teaching?** *(Additional prompts: Are there specific local people or places that teachers connect with most? What are some local resources that are not currently being used to support learning, but that you think could be helpful?)*

3) **How would you describe the culture, norms, and expectations around teaching in this school?** *(Additional prompts: Are project-based or service-learning, or place-based education common approaches? To what extent do you think people are interested in this type of teaching? What kind of teaching is most strongly supported by the administration at the school or district level?)*

4) **Using your imagination and wild hopes, what kind of success stories about teaching and learning in this school would you like to be able to tell to friends or family three years from now (in terms of impact on students, your own teaching, the school, the community)?** *(Additional prompts: How, if at all, might place-based education factor into your dreams and visions for this school and community? How likely do you think it is that you will make progress toward the type of education you are talking about here?)*

5) **What types of resources would you most need in order to embrace place-based education?** *(Additional prompts: What are the biggest barriers to doing PBE in your school? If you were in charge of making PBE a part of the school culture, what would be the first thing you would do?)*

6) **Anything else you'd like to share?** *(Additional prompts: Summaries? Main points you'd like to reinforce? Anything we missed?)*

Sample PBE Projects at Warren

1) 6th grade: Warren Canal projects (e.g. Quest, canal model, canal mapping)

2) 2nd & 6th grade: Local Crafts projects (e.g. knitting, spinning, making felt ornaments/ accessories, cooking)

3) 3rd grade: Gardening programs (e.g. apprentice gardeners, three sisters, sunflower house, etc.)

4) K – 2nd grade: Salad Growing/Harvest Parties projects

5) 4th - 5th grade: Local History projects (e.g. Black History month, downtown history walk, Warren heros, Warren explorers, family stories, etc.)

6) 3rd – 6th grade: Reading Volunteers at Public Library

7) 4th – 6th grade: Visiting Artists (e.g. Music, Visual arts, Dance)

8) K - 6th grade: Nature Trail activities (plant identification, food webs, nature writing, nature observation, signs of the season, trail maintenance)

APPENDIX E

CO-SEED Logic Model

Through the implementation of comprehensive place-based education we will contribute positively to school improvement, environmental stewardship behavior, community vitality, and environmental quality

INPUTS

- Community Development Services
- Place-based Education Model Creation and
- Community–based learning Center service
- Higher Education Institution Relationship
- Funding

ACTIVITIES

- h. Small grants to SEED teams
- a. Teacher release time for project development
- c. Professional Development for faculty and community leaders in Place-based education pedagogy, Service Learning, Project-based learning, Shared vision planning, Partnership development, Mentor-team coaching
- d. Capacity building for school, CLC and community
- e. Facilitate student support for programs, teachers and community
- f. Media/classroom needs with school and community, resource opportunities, CLC connection, school to CLC resource
- g. Teacher Consultation, Project Planning Instruction
- h. Network classroom integration into community
- i. Model teaching through Direct Classroom
- l. Publications—Place-based Education
- j. Teacher Consultation, Project Planning Instruction
- i. Funder briefings, conferences presentations, Notes from the field—Case studies, model annual website
- k. Community Forum, Partnership Evenings, SEED team inclusion

OUTPUTS

- a. Teachers design curriculum around real life school and community-based projects
- b. Kids in the community learning, community resources in school supporting curriculum
- c. Teachers articulate how place-based education addresses standards
- d. Teachers and community members gain facilitation skills
- e. Increased frequency of community, environment learning initiatives in school
- f. CLC's develop skills to link programming to school curriculum
- g. Understanding for local issues and services-learning projects that benefit the community
- h. Students participate in life-to-life to changes and services
- i. Students identify needs for environmental quality improvement
- j. Greater use of public resources and land
- k. SEED team evolves as a purposeful group and understands role in directing project
- l. Community improvement initiatives emerge from specific and follow-up activities that include roles for students
- m. Community meetings opening more effectively
- n. Increased community participation in school activities
- o. Increased student participation in school and community
- p. Higher level of community volunteerism
- q. School and CO-SEED websites illustrate successful projects

OUTCOMES

- a. Increase academic achievement
- b. Students value their community's natural and cultural assets
- c. Kids, teachers and community members have skills and confidence to be change agents in their communities
- D. Students demonstrate an understanding of how ones actions affect the environment
- e. Students behave in environmentally responsible ways
- f. CLC's shift towards more in-depth, long term programming and relationships with schools
- g. CLC is integrated into the life of the community and is and to solve community problems
- h. Measurable environmental quality improvements take place
- i. Greater public support for conservation of natural and cultural resources
- j. Parents and community members have a better understanding of and are more engaged in school functions
- k. Schools and towns work together to solve local environmental, economic, and social issues
- l. Environmental considerations are given increased attention by local elected officials
- m. Policy changes are implemented to promote improved environmental quality
- n. Students, teachers and community members seek and apply feedback to continually assess and revise programs
- Parents support place-based education

IMPACTS

| Motivated, ecologically literate students engaged in their communities | Increase in social capital that manifests as active local engagement in community issues, opportunities and social justice | Sustainable balance between environmental quality and economic vitality |

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