This year our Entergy Team was made up of nine (9) teachers. Their classrooms span from 3rd grade through High School and hail from Oswego and Onondaga counties. As always, our focus is on math, science, technology (MST) and career aspects of those curricular areas and making these experiences hands-on and “real-world.” Our teachers not only focus on student learning, but on their own professional development as well.

Entergy Corporation has been extremely supportive and collaborative year after year of this project. Several of Entergy’s employees have been active in our classrooms and are very enthusiastic participants! Furthermore, we have received funding for our 7th year of work! Very little of what our team of teachers has accomplished could be done without the generous support from Entergy.

As always, I would like to thank Dr. Marcia Burrell and Dr. Barbara Beyerbach for their guidance, support, help, and for being a sounding board on occasion! I am looking forward to many more years of work with them and the entire Project SMART team.

Respectfully submitted,

Sue Witmer

This year started with a training for the team by Carol Blunt-White on the subject of data strategies. The team looked at their classrooms in September to see where the “holes” were: What is it that this particular group of students needs? What areas of curriculum do they lack knowledge? How would this/these problem(s) best be addressed? What is this particular group of students bringing to the table? Once these questions were answered, teachers planned activities, events, and field trips to fill in those gaps. They constructed ways to measure student learning around these activities and worked on how to analyze this data.

Over all, the team reports that they feel their students are engaged in real-world, hands on activities. A variety of techniques and technological strategies were used. Clickers with Smart Boards, iPods, “apps”, websites, and new software were used as well as field trips, leveled texts, and journaling, and other more traditional classroom activities. They also indicate that they feel they are making changes in their classrooms that result in them being a “more effective agent of change in the lives of my students and faculty” as well as preparing students for the 21st century through innovative and creative means. Motivation is a key component in all classrooms and by using engaging activities, programs, and many resources, they are seeing improvements in grades and attitudes toward learning.

• Class size is an area that most teachers have concerns with. One of our team members noted that “students with the smaller class size had the most improvement in scores” for the units he was teaching. He also stated that using clickers “provides prompt feedback to student questions.” This teacher also included his students in project selection for his Technology and found it to be helpful and the post-test “indicated more learning occurred” that way.

• Leveled texts were introduced in one elementary school. Our team teacher surveyed the other teachers in the building who used this resource. She found that 100% “of the teachers find that using leveled texts helps their students become better readers.” These same teachers used the texts “either always or frequently” in the areas of Science and Social Studies. It was reported that students “loved” using the new texts and that they “felt success and improved their comprehension having books at their level.”

• Students showed a significant increase (9 points) in a College Physics class average, on the final exam. These students set exam goals and looked at actual results over the semester and each exam was graphed for the entire class. This graph was displayed in the room (without names attached). One result of this was an “increase in student interest in holding review sessions for major tests outside of class time.”
• In a Regents Science Prep class, graphing skills were addressed. Graphing skills showed a growth of 86% and Ecosystem Quizzes showed a 36% growth in knowledge.

• A field trip to an area zoo was part of a large unit that integrated jobs at the zoo, research, video, and movie making on animals and their ecoregion that the student chose as a focus while on the zoo trip. The teacher on this project told reported that this was a successful unit and was enjoyed by all.

• A math assessment for basic computation skills, AIMS web, was given to 3rd, 4th, and 6th grade classes. The data showed improvement in all three grade levels from beginning to end. Students needing intervention went from 15% to 7% in 3rd grade, from 29% to 15% in 4th grade, and from 12% to 5% in the 6th grade classroom.

• Writer’s Notebooks were also used in elementary rooms. These teachers report that “students were writing much longer entries and better quality” at the end of the project. Students were better at using more details, as well as other mechanics of writing, upon completion.

• After integrating hands-on science projects in three elementary classrooms, students were given a Science Attitude Survey. After looking at the data at the end of the project, they saw “a remarkable increase in the attitudes of all students. 84% of students now selected Science as their favorite subject.” One 4th grade student said, “Ugh, do we have to do Social Studies today, I really want to do Science.” A 6th grader is quoted as saying, “I never thought I’d want to be a scientist when I grow up, but that’s what I want!”

• iPods were an exciting part of one teacher’s goal to motivate students in all 5th grade content areas. He followed the New York State Standards but used a non-traditional approach of new technology. He found that “students who were often distracted or frustrated, are now focused and on task.” He reports that he enjoys “them just as much as they do! It has not only enhanced the student’s true love of learning, but has done the same for my teaching.” The iPods “catered to the needs of each individual” but the class then collaborated with 3rd grade classes to help them learn multiplication on the iPods. They became the teachers. An example of pre- and post-activity poems are as follows to show the change in student attitudes:

Pre:

Math is boring, I fall asleep
I feel like I am counting sheep
The clock goes slow
Just watch it flow
Why can’t I just make some dough?

Post:

iPods rock
Math, science, S.S., ELA
Lets all give a big hurray
They make me learn
With so much fun
I love the apps
Especially Math!
Professional development took form in membership with the Amazon Kindle Discussion Board which helped one of our teachers “collect many excellent and practical ideas about managing and using the e-book” in her classroom and in communicating “with other educators who are also using iPods in their classrooms through ISTE (International Society of Technology Education). This teacher states, “Using these tools in my classroom has pushed me to grow as a digital educator who is capable of guiding my students through our digital world.”

On a Scholastic Reading Inventory in a local 5th grade classroom, “fourteen out of twenty-two students gained an above average number of lexiles over the period of fifth grade. The average amount of lexiles a student is expected to gain ranges from 75 – 100. For these fourteen students, the average amount of increased lexiles was 152. The largest growth lexiles was a 220 point jump. This was made by a student who is a low average achiever. This inventory was given after utilizing e-books, iPods, and a journal called “Learning and Leading.” This teacher also reports that “students benefited from the novelty of the e-books and iPods” and “were excited to settle in and read.”

One team member kept a reflective journal for the academic year to look at her learning as a teacher. She also worked with a literacy coach to help her in her project. A pre- and post-test were conducted around vocabulary terms and disease processes designed around improving student literacy in science. The intended goal is to increase success on the Regents exam. Grades did go up from pre- to post-test and students had interesting comments regarding the reading of materials on the subject matter. For example, “I am glad I live now when we have a lot of medicines that take care of our sicknesses.” And I liked reading the book it helped me figure out about diseases.”

In conclusion, collaboration between team members, SUNY Oswego faculty and staff, school personnel, other teachers and administrators in the schools is a side benefit to all of these projects. Not only do the students learn in the individual classrooms, but the knowledge is passed on to other students and other teachers through this collaboration. Striving for excellence can be contagious and our team continues to work at a high level for their students, themselves, their peers, and their communities.

Action Reports are on the Project SMART website for all teachers on the Entergy Project. Also visit the links that are posted for other and further information.