



School In The Park's **Purpose, Educational Philosophy & Ongoing Program Development**

I. Purpose of School In The Park (SITP)

The purpose of SITP is to provide students from the inner city with challenging, engaging, authentic academic and cultural learning opportunities that are often otherwise inaccessible to them. The SITP experience is designed to give children a love of learning and to increase creative thinking, curiosity, self-confidence, and academic success. Working with classroom teachers and museum educators, SITP seeks to bridge formal and informal learning environments to provide an articulated educational program that reflects the critical research-driven principles of optimal learning. SITP is uniquely positioned to achieve this goal because of its ability to take advantage of the rich resources within the museums at Balboa Park.

II. SITP Educational Philosophy

At *School In The Park* (SITP), our educational philosophy guides our decision-making about education policies and practices that will best address the needs of our students. We know that our students will enter a work force where they will likely hold 10 different jobs before they are 40 years old (US Department of Labor, 2006). We know that the top 10 in-demand jobs projected for 2010 didn't even exist in 2004 (Gunderson, Jones, & Scanland, 2004). In just the four years between 1999 and 2002, the amount of new information produced equaled the total amount produced in the history of the world previously (Varian & Lyman, 2003).

As daunting as this information may seem, SITP educators realize that these changes have major implications for how we teach the children of the 21st century. Just as important as specific subject matter knowledge, our children will need a much more expansive set of skills that enable them to identify and apply pertinent knowledge and skills across an ever-expanding range of contexts.

As we pursue this challenge at SITP, we are guided by a set of research-driven beliefs about the teaching/learning environment:

We believe that:

- ... learning activities should be challenging and meaningful, reflecting how knowledge is used beyond the immediate learning environment;
- ... learning should be active, collaborative and significantly project-based, giving students opportunities to apply what they are learning in meaningful ways that take full advantage of the rich resources within Balboa Park;
- ... ongoing assessment is a critical part of the teaching/learning process and developing authentic assessment tools requires going beyond what is easily measured toward what is most *important* to measure;
- ... instruction should be scaffolded in a manner that is sensitive to the learning needs of our students;
- ... clear expectations should be set and communicated;
- ... the prior knowledge of our students should be used to help them understand new information/concepts, and;
- ... life-long learning behaviors are best taught by example and, as educators, we must continually model those behaviors for our students.

Beyond the educational buzzwords, we realize that executing effective collaborative learning, project-based learning, activation of prior knowledge, etc. must be informed by rigorous research in these areas. For example, research on collaborative learning cautions us that just putting students together in groups to work on activities does not ensure a productive learning experience. Elements of effective student collaboration have been clearly identified across hundreds of research studies. The same is true for many other instructional strategies used at School In The Park.

Below is a brief description of collaborative Project-Based Learning activities and Authentic Assessment tools that reflect the SITP Educational Philosophy:

❖ **Collaborative Project-Based Activities**

Third Grade

Art Museum Rotation 3 – *Students work in groups of four to create a series of narrative portraits based on the biography of their patron over his lifetime in Renaissance Venice and Florence*

San Diego History Museum Rotation 2 – *Working in pairs, students use their skills in reading maps and using a compass to go on a Kumeyaay Scavenger Hunt.*

Fourth Grade

Museum of Photographic Arts Rotation 1 – *Students take photographs and write an article creating a magazine of garden areas in Balboa Park*

Museum of Man Rotation 2 – *Groups of students become archeological teams investigating the site of ancient ‘graves’ to determine the gender, age, possible cause of death, and culture of the remains and artifacts.*

Fifth Grade

Reuben H. Fleet Rotation 1 – *Students use their knowledge of the physical properties of matter to separate mixtures and solutions.*

Air and Space Rotation 2 - *Students work in triads to design and build a return capsule for their astronaut so that it survives a shoulder-, ladder-, and balcony-high drop.*

❖ **Authentic Assessment Tools**

Performance-based assessments are being developed and used to better reflect students’ actual learning. Not only do these assessments assess skills and content knowledge, but they are also designed to assess students’ level of engagement as individuals and as part of a group.

Third Grade

Zoo Rotation 3 – *Students are assessed on the ability to do an owl pellet dissection and answer the question: “What do owls eat?”*

Art Rotation 2 – *Students are assessed on their Journey Logs where they describe their visits to the various cities along the Silk Road.*

Fourth Grade

Natural History Rotation 2– *Students are assessed on their ability to identify minerals based on their properties using diagnostic mineral identification charts.*

Junior Theatre - *Students use a performance assessment after viewing their dress rehearsal Gold Rush skits and then make needed adjustments for their final videotaping.*

Fifth Grade

Air and Space Rotation 2 – *Students are assessed on the height their bottle rockets achieve when launched as well as on the success of their modifications.*

III. Ongoing Program Development at SITP

While we believe that SITP is tremendously valuable to the students it serves, the combination of continual program assessment and innovation will increase its effectiveness. Below are brief descriptions of the major initiatives we have chosen to pursue as we move forward:

1. Common Language & Critical Skill Building across Museum Curriculum

Children do not spontaneously understand that inquiry skills, problem-solving skills and design skills can be transferred across a wide variety of learning situations. In fact, children do not often realize that they are engaging in these skills at all unless educators specifically teach the skills and give each of them a name. At SITP, we strive to teach these skills explicitly and consistently across the curriculum. For example, museum educators at the Fleet Science Center teach students the processes involved in constructive inquiry. When those same students arrive at the Air & Space Museum, museum educators attempt to use the same processes and refer to those processes by the same name. In this manner, students begin to understand that inquiry skills can be used in a variety of contexts.

SITP students are at the ideal age to begin learning a strong, initial set of these critical skills and consistent application opportunities and common vocabulary across the different SITP museum experiences is extremely important. However, this consistency is not simply automatic. This year, the *School In The Park Educational Council* (SITPEC), comprised of all the SITP museum educators, the SITP Director, SITP Program Manager, SITP Program Assistant and the SDSU/SITP faculty person, has doubled its two-hour meeting sessions to ensure that increased attention can be given to this articulation effort.

2. Authentic Assessment Instruments

As educators, we must move from making the measurable important to making the *important* measurable. The skills and knowledge valued at SITP are often very difficult to measure with traditional assessment instruments. This does not mean, however, that rigorous assessment is unimportant. It simply means that SITP educators need to become more skilled at developing what are often referred to as 'authentic' assessment tools. The development of these tools (which often manifest themselves in a rubric format) is similar in some ways to the more traditional assessments in that it begins with attention to learning goals and objectives and creates ways to measure the level of their accomplishment. The difference between the more traditional assessments and authentic assessments is that authentic assessments seldom measure discrete skills. Rather, they measure a combination of skills that culminate, most commonly, in some sort of product. This combination of skills can be complex, including such elements as writing skills, questioning skills, and the level of individual engagement and engagement with others in the group. The elements that are defined within each authentic assessment tool are all seen as being vital to a successful learning outcome.

Again, as with the development of critical thinking skills (i.e. inquiry and problem-solving) and the use of common vocabulary, the development of authentic assessment instruments requires enhanced professional development for museum educators. The employment of authentic assessments also presents challenges because they often require direct observation of each student. We continue to work on creative ways to address these challenges to find more economical ways to operationalize these assessments. This is a critical area of focus at SITP because these assessments not

only give us valuable information about current student learning, they also help us identify areas of the SITP curriculum that need to be improved for future students.

3. Focus on English Language Learners

Roughly 84% of the students who come to SITP are English Language Learners. Of that population, most have Spanish as their native language. While the instruction at SITP is in English, we have a responsibility to employ as many strategies as possible to help English Language Learners comprehend the skills and concepts being taught. Earlier this year, one entire SITPEC meeting was devoted to such strategies as presented by an ELL specialist. We also presently have an ELL specialist from SDSU who is involved in research with SITP staff.

In addition to working with all SITP museum educators on ELL strategies, we are pursuing research in the areas described below:

Podcast Studies. We have completed the first podcast study and are presently engaged in the second study. The first study examined the effect of Spanish language podcasts on 3rd grade English language learners' (ELL) academic performance and level of engagement during subsequent English-only instruction. Significant differences were found between the podcast and control groups' performance on study instruments designed to assess students' abilities to apply the information they were learning. The pre/post instrument designed to measure growth in students' academic vocabulary comprehension showed no overall differences between groups. However, further analysis of the podcast group alone revealed significant differences in academic vocabulary comprehension for students at the beginning level of English language proficiency. In follow-up focus groups, students reported the podcasts very useful in preparing them for the English-only instruction. In interviews with the instructors, they reported an increase in the podcast groups' willingness to verbally interact and a generally heightened level of motivation. Information was also gathered related to; 1) the effect podcast development had on instructors' use of ELL instructional strategies, 2) issues surrounding podcast production, and 3) logistics of podcast use.

Future studies may include the investigation of the use of electronic *Student Response Systems* to see if they make a difference in English Language Learner's levels of engagement and to ascertain whether the immediate feedback this technology can offer museum educators makes a qualitative difference in their instruction.

The increased, wise experimentation with new technologies holds great promise for SITP and is possible, in large part, because of the addition of a half-time instructional technologist to the SITP team.

Vocabulary Cards. In continuing to reflect on how to best serve the needs of students for English Language Learners, the results from the podcast study opened questions regarding effective approaches to more explicit language instruction and support. Ongoing research questions include:

1. What additional instructional methods will facilitate students' acquisition of key academic vocabulary used across the SITP curriculum?
2. What materials optimally support students' schema building of key vocabulary used in SITP museum classrooms?

A recently completed study evaluated the effect of both vocabulary DVDs provided to classroom teachers to use in advance of their museum classroom rotation and sets of vocabulary cards for students, teachers, and facilitators to use in museum classrooms. While development of the DVDs and cards proved to be very labor intensive (completed sets were created for only 2 museum classrooms), treatment group data revealed

significant gain in students' recall and use of content words in both verbal and written responses. These results may be attributed to increased attention to language development, use of the vocabulary cards to review/reinforce content language, and at least partial use of the power point slides used to generate the DVD. It should be noted that not all classroom teachers have access to DVD players in their school site classrooms and so not all students in the study had used them.

Tangentially, a period of time (approximately ten minutes), has been set aside each morning for SITP facilitators to use vocabulary cards in a variety of instructional activities. The SITP facilitators have had two, one-hour sessions of training in three different vocabulary development methods, using the content-specific cards for each museum. This training was provided by the SITP Director, who also has ELL expertise.

Moving forward, we will continue to create vocabulary cards to support academic language development. The current question regarding the cards is to experiment with their content. The first generation of cards included; Target word, picture/visual representation of the word, syllabication of the word, a definition in English, a translated definition in Spanish, a sample sentence in English, and a translated sample sentence in Spanish. The cards created for spring 2009 have been slightly streamlined with the syllabication and translated sample sentence deleted from the template. The SITP team will collect data on students' recall and use of content words in both written and oral responses to see if the current card model is as effective as what was used in the fall.