

Let's Give Them Something to Talk About! (Part 2)

Editor's Note: This is the second in a series of three articles on how English Language Development (ELD) occurs in the highly contextualized discipline of the science classroom.

Funded by ITQ/CPEC four years ago, our work in the Montebello Unified School District with English Learners (ELs) in science was a bold experiment that continues to have great results.

In the first article, we presented the overall design for professional development that included science content, pedagogy and ELD instruction for every teacher at Bell Gardens Elementary (BGE) School (See November 2011, Vol. 11, No.1 at <http://k12alliance.org/index.php>).

Each summer BGE teachers also learned science content at one of the local informal science institutions, including the Discovery Science Center, the California Science Center and the Cabrillo Marine Aquarium. During the school year, on-going professional development blended science content, pedagogy and ELD through the K-12 Alliance's Teaching Learning Collaborative (TLC).

In this article we explore the specific professional

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development strategies and tools that helped teachers give their students something meaningful to talk about!

As a lesson study approach, TLC is in use throughout K-12 Alliance schools in California and Washington and relies on in-depth planning, where teachers anticipate and prepare for Expected Student Responses (ESRs) to the teacher's questions or prompts. To plan for this type of instruction, small teams of teachers – led by a facilitator – construct conceptual flows to identify the important concepts relevant to instruction and then craft lessons via the 5Es.

Readers familiar with the 5Es Instructional Model (Bybee, 1997) will recognize the K-12 Alliance's adaptation of this powerful planning tool (See Figure 1) that is used in every TLC.

TALK, CONTINUED ON PAGE 8

Figure 1. 5E Planning Chart

Learning Sequence Concept _____

Stage	Teacher Does	Student Does	Concept
ENGAGE			
EXPLORE			
EXPLAIN			
EXTEND			
EVALUATE			

Adapted from *Achieving Scientific Literacy*, Bybee, 1997.

A New Meaning for Multiplying

By Kathy DiRanna

I had the pleasure of being a part of the host committee for the Learning Forward (formerly NSDC) National Conference, held in Anaheim last December. One of the perks of being on the committee is getting the inside “scoop” on who the speakers would be. When I saw the list, I was initially disappointed that some of the big names, like Michael Fullan and Linda Darling-Hammond who had been at past conferences, wouldn't be here.

But I also knew that Learning Forward always arranges a good slate of speakers – and this time was no different.

Engaging the audience right off the bat, a tall slender woman began asking the listeners if they had ever worked for people who squelched them. (Who hasn't these days?) The speaker asked: what percent did the audience think they gave of themselves and their creativity to that person? The answer varied between 10-30 percent. When the same question was asked of those who worked for people who made them flourish, the answer was an amazing 70-100 percent.

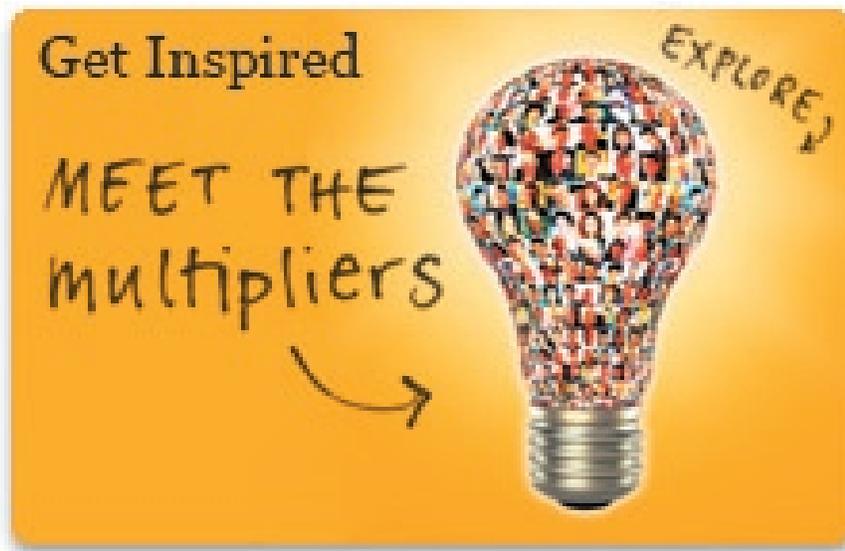
Liz Wiseman, author of *Multipliers: How the Best Leaders Make Everyone Smarter*, had made her point. With skilled leaders, you can actually increase the creative productivity of an organization by at least two times! You can actually get more out of people than they knew they had to give!

Liz and her partner Greg Mckeown researched more than 144 different leaders of business organizations and found that leaders either multiplied or diminished the capacity of their workers and organization by their behaviors.

According to their research, Wiseman and Mckeown found that all leaders were smart people, selected as leaders because of their knowledge. The impact of their leadership on their organizations, however, was the result of their assumptions about their role. Were they a genius or a *genius maker*?

The researchers sorted the behaviors into two groups – Diminisher and Multiplier. The former was a person who led teams in silos and who, despite having smart people on their team, seemed not to be able to accomplish the goals. The latter was a person who led teams that were able to understand and solve hard problems, rapidly achieve its goals, and adapt and increase its capacity over time.

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K-12 Alliance Creates “Bright Leaders”

By Brad Schleder

“... the positive changes in me from the K-12 Alliance are visible to everyone I work work.”

Brad Schleder

Light bulb emblazoned hats, pajamas, underwear and snow globes are probably in your house if you have been associated with the K-12 Alliance. But don't be fooled by all of the cheeky paraphernalia, the K-12 Alliance is a powerful organization – one that also has a good sense of humor to boot!

For three years I have had the privilege of learning from this dedicated group of professionals and the result has been transformational. The K-12 Alliance's professional development shifted my focus on details to “What's the Big Idea?” This change has given me a framework that ensures that each decision we make as a team will further our project's goals.

In addition, the trainings have improved my nonverbal communication, understanding different personality types and facilitation skills. They do all of this with pizzazz and light-hearted humor. No wonder they have a dedicated following of educators for more than 25 years!

Most importantly, this organization has made me a better leader. The K-12 Alliance not only inspired me, but also provided opportunities to grow. Their sessions on leadership allowed me to reflect on the qualities of a leader and to explore my own strengths and weaknesses.

The people of the K-12 Alliance have made the biggest impact. Our Regional Director, Rita Starnes, has been a true role model. I watched and learned during our first Summer Institute as she turned the lunchroom into a Command Center, filled the whiteboard with tasks, and changed our group of newbies into Staff Developers. Our first triumph was the beginning of a very successful grant.

I am fortunate to have such an accomplished mentor. All of the members of the K-12 Alliance are the personification of leadership and their ability to effect change is undeniable.

Okay, true confession. The kitschy light bulb clothes and plastic objects are not on display in my house (they are in a box in my office). I know, however, the positive changes in me from the K-12 Alliance are visible to everyone I work with. ■

Brad Schleder is now the Center Director for a new CaMSP Science Demonstration Center Grant in Kings Canyon Unified. He was the Project Director for the Cohort 6 CaMSP Science Grant in Kings Canyon/Sanger school districts.





Mid-Year's Resolutions

By Melissa Smith

As a teacher, I often spend more time writing New Year's Resolutions at the beginning of the new school year, rather than the new calendar year. In fact, this year seemed more overwhelming since I have been out of the classroom for three years. I had a mile-long list.

I wanted to improve my student notebooking experience, give my students every opportunity to access the content, provide differentiation for all students' needs, provide the supplies needed to be successful, be available to each student as necessary, etc. Then, reality set in. Between 42-55 students per class, 230 total students...what was I thinking?!

Somewhere in the middle of the first semester, I went from the superhero I wanted to become, to the "new" teacher struggling to stay afloat. While I did succeed in making many positive changes to my teaching style, several things that mattered to me got lost in the shuffle; the most important was related to my student notebooks.

Over the last few years, student notebooks have become the protocol of the moment with endless information for teachers on how to incorporate them into classrooms. Unfortunately, in the process of making things easier for teachers, student thinking often becomes lost to organizational strategies.

At a K-12 Alliance Staff Developer meeting over the summer, my fellow teachers and I discussed the kinds of information that should go into a student notebook. We wanted to simplify the process so teacher-accessible notebooks would still encourage student thinking. We came up with this list of what we wanted notebooks to provide:

- Access students' prior knowledge
- Data collection and entry
- Student information synthesis
- Student metacognition

At the January Staff Developer Training, I was reminded of these notebook characteristics and realized that my student notebooks did not reflect the goals I had set at the beginning of the year. A humbling experience indeed.

My students' notebooks contained a great deal of data collection and student thinking, but I had not asked students to document what they knew about a subject before we started talking about it (accessing prior knowledge). Also, I had not provided time at the end of a learning experience for students to reflect (metacognate) on their own growth and learning.

By the end of the weekend training, I knew I needed to make some changes. Overall, I learned what many of us in the teaching profession tend to forget: it's NEVER too late. Once the school year starts rolling, it's difficult, but not impossible, to stop or redirect. You CAN – and SHOULD – make appropriate changes in the middle of the year.

After my training weekend, I returned to the classroom with a new focus and goal: always ask students to write what they know or understand about the topic AND make sure to provide time for students to reflect AFTER their learning experience.

These simple changes have provided me with a greater sense of focus in the classroom and have given my students a chance to breathe. They can stop for a moment and think before barreling onto something else.

More than halfway through the school year, I encourage you to think about one thing you wanted to change this year, that one thing you didn't get a chance to change. Now, make a Mid Year's Resolution to incorporate "that one thing" into the classroom NOW, rather than waiting for the next school year.

In life, as well as in education, it's never too late to make positive changes that will benefit those around us. Every day offers us a new perspective; opportunities that can redirect our energies, refocus our goals and bring us closer to the kind of teachers we want to become. ■

Melissa Smith is an eighth grade teacher at Canyon Lake Middle School in Lake Elsinore USD. She was the project director for the Lake Elsinore and Temecula Valley USD MSP that concluded in 2011.



A Collaborative TAP Dance in San Diego

(Cue *Jeopardy* theme music)

The answer: axial movements, tableaux and water-color crayons which increase student achievement in science. The question: What is the Teaching Artist Project (TAP)?

Using a variety of resources in the realms of dance, theater and visual arts, TAP has been successfully integrating science and the arts into meaningful instruction for students in grades 3-5 at 15 elementary schools in the San Diego Unified School District (SDUSD). The program has been in place for 2 years, funded with an Improving Teacher Quality Grant from the California Post Secondary Education Commission.

TAP is a collaborative effort involving uncommon but complementary partners: SDUSD's Visual and Performing Arts (VAPA) department, UC Irvine, 15 SDUSD elementary schools and the K-12 Alliance. Working together, TAP designs lessons in the arts that augment SDUSD's science curriculum to help students experience science concepts in methods guaranteed to engage all learners!

For example: many teachers did not fully understand the phases of the moon until they had to teach this complex idea. It's a visual as well as intellectual concept. For third graders in TAP schools, it's now a kinesthetic concept. These students learn about moon phases through traditional methods of observation, drawing and labeling, but they also dance the moon's phases in 28 beats with sweeping arm movements to understand how Earth and moon are truly celestial partners!

The focus and goals of TAP are straightforward: science standards were not being met at low performing schools. Lessons are designed to implement the arts (dance, visual, and theatre) for third, fourth, and fifth graders as a way to engage students in learning and reinforce science concepts.

"Teaching artists teach the lessons with students first, while classroom teachers see the lesson modeled; [classroom teachers then] receive professional development so they can use the lessons in the future," says Don Whisman, Science Program Manager for SDUSD.

Just imagine: students experience science learning via hands-on FOSS materials and then revisit more difficult to understand science concepts – this time, with a teaching artist.

Every life, Earth, and physical science FOSS module at grades 3-5 is supported with nine additional arts lessons, i.e., three dance lessons, three theater arts lessons, and three visual arts lessons developed by the VAPA team and assisted by the K-12 Alliance.

Each lesson is a work of art. The TAP team consists of: Denise Lynne (Dance Resource and Grants/Teaching Artists Coordinator), Marty Stegeman (Visual Arts Resource Teacher), and Patrick Garcia (Theater Arts Resource Teacher). K-12 Alliance Regional Director Jo Topps has been onboard since September, 2011 offering technical assistance in science content and pedagogy.

Integration of any two subjects – including science and art – is truly a dance. Who leads? Who follows? Since one of the goals of TAP is to increase student achievement in science, it makes sense that science should lead, yet the TAP team has discovered that at times, the arts lead.

Before students can learn science during an arts lesson, they may need to learn the steps in a dance, where to draw the horizon line or how to improvise a scene. Finding balance between the two disciplines has been the team's greatest challenge. They constantly question their lesson designs. Does this lesson have too much dance and not enough science? Or is this just another science lesson and not an arts lesson? The role of the K-12 Alliance has been to help achieve that balance and to assure that students' misconceptions about science are dispelled.

If you thought hands-on science was active learning, these fortunate San Diego students now move, act, paint and draw! After each lesson, students also take a moment to reflect and write in their science notebooks about how the arts lesson helped them understand science concepts.

Now, these students in low-performing schools have wonderful meta-cognitive ways to take charge of their learning. With left and right brain stimulated, these students have richer, rewarding and long-lasting learning experiences. ■

Taking a "Swirl" for Real Learning

Teachers often report that students clamor for more science in the primary grades. Kids just can't get enough of science!

It's unfortunate, but many times science is removed in those grades to make room for more language arts and mathematics – Oasis School in the Coachella Valley has had a history of such omission.

But with the help of a CPEC-sponsored grant, a program is helping young minds stay connected to the world of science.

Now in its third year, Science Writing Impacts Real Learning (SWIRL) starts with tried and true strategies of content and pedagogical support for teachers implementing FOSS science school wide. Teachers are also involved in K-12 Alliance summer institutes and lesson studies.

But SWIRL's non-traditional strategy is what brings the program to new heights. Not far from Oasis School, nearby Chavez School, under the guidance of teacher Jenny Lopez Ngigi, developed the program in 2008 as a parent support program – and its positive impact has been spreading since.

Simply put, SWIRL involves everyone. The entire school community; parents, teachers and students together learn one science unit as part of an afterschool component.

Replicating the Chavez program, Oasis focuses on science as a community. The afterschool component strives to establish a science culture at the school as well as model ways for parents to support academic language at home. Both English and Spanish are spoken in the after school sessions which support development of academic excellence in both languages.

Grades K, 1, and 2 are the prime targets to build parent knowledge of school practices that support language and writing. Parents work side by side with teachers and small groups of students. Students spend 50 percent of the time doing science and discussing science; the other 50 percent of the time is spent writing in notebooks recording ideas.

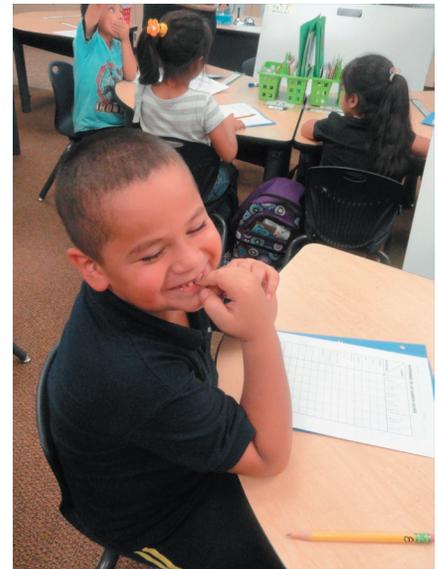
"I know we are going to do something really good...today...it is science time," says one excited Oasis first grader. "I love school when we have science time."

The SWIRL benefits are plentiful to students, teachers and the community.

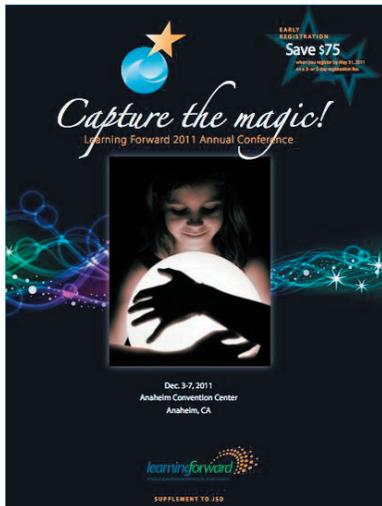
Students receive more academic challenges in their days and continue their academic "talk" with their families in the evening. SWIRL builds on student excitement about science as a strategy to improve language and writing.

Teachers also see that students attending the afterschool portion are the first to know the academic science language in the unit. The afterschool students proudly lead the class in "being in the know" about school topics.

So despite cutbacks and curriculum setbacks, Oasis School has plenty of reasons to hope for the future. In three years, SWIRL has established a school culture where all children, teachers and parents expect science to be a part of everyday learning. SWIRL provides an environment for science, an "oasis" of science opportunities, for everyone! Now, isn't that refreshing? ■



Capturing the Magic at Learning Forward



At Learning Forward (previously called National Staff Development Council) held its annual conference last December in beautiful Anaheim, California with a special K-12 Alliance sparkle. Serving on the conference host committee were K-12 Director Kathy DiRanna and Regional Director Susan Gomez Zwiép who wore their blue uniform vests proudly every moment of the conference.

While Kathy and Susan were actively coordinating daily conference events, other K-12 Alliance folks were busy presenting workshops on Conceptual Flows, the Teacher Learning Collaborative, the 5E lesson design with ELD integration and successful grant writing strategies.

Our K-12 Alliance gang, however, is never content with just presenting. They also took on volunteer duties such as manning the Hospitality Desk and assisting student performers find their way on and off the stage to entertain the crowds before each keynote speaker.

As part of its annual conference, Learning Forward presents a small number of awards, one of which was named for a dear friend to the K-12 Alliance. The Susan Loucks-Horsley Award honors the memory of Susan Loucks-Horsley who was a close friend to Kathy and many of the Regional Directors before her untimely death. The award recognizes individuals who exemplify Susan's commitment to instill efficacy in others, collaborate across boundaries, and sustain impact on the field of professional learning.

This year's recipient was our own Kathy DiRanna. Presenting the award, Learning Forward described Kathy as an individual who has shaped the quality of science teaching for the past 25 years through her extensive work in systemic reform and is known for her leadership and commitment to quality science and mathematics education.

The K-12 Alliance always celebrate when one of our own is honored (we learned that from Kathy); so join us as we toast in honor of our dear friend, Susan Loucks-Horsley and all those who worked and continue to work in the name of quality education that benefits both student and teacher! ■



TOP: WORKING THE CROWDS

– Marcia Trott (center) from CPEC joined the K-12 Alliance contingency Kathy DiRanna (left) and Susan Gomez Zwiép as an “invited guest” for the conference

RIGHT: MAKING A STATEMENT--

Susan Gomez Zwiép (left) and Kathy DiRanna scope out the resource materials at the WestEd bookstore in the Exhibit Hall.



TALK, CONTINUED FROM PAGE 1

Project leadership knew that in order for students to move from Basic Interpersonal Communicative Skills (BICS) to Cognitive Academic Language Proficiency (CALP), they needed to provide professional development that focused on language appropriate for students at all CELDT levels (See Sidebar).

Students are able to function on the playground and in most social situations at the BICS level. Teachers often have the false notion that because students are able to communicate in this way they are also able to understand and use demanding academic language. As we know this is not always the case. Teachers must be strategic about providing students an opportunity to use academic language in the context of core content subjects.

Building on the original TLC planning documents, project leadership designed a 5E Planning Chart (See Figure 2) that incorporates the CELDT language development levels of students.

The leadership team realized early on that planning ESRs for all five of the language development levels was not effective, so the team devised a way to anticipate student responses at three levels: beginning to early intermediate, intermediate and early advanced to advanced.

In *How People Learn* (Bransford, 1999), we learned that experts have a schema on which to construct new learning. Likewise, expert teachers have a schema for the types of responses they will receive from their students and based on that schema have a repertoire of follow-on prompts to help students construct meaning. Our hope was to have teachers develop expert teacher behaviors by systematically planning for the range of student responses.

Other features of the 5E Planning Chart With an ELD Option included specifically identifying the language objective of the lesson and language functions appropriate for each stage of the lesson.

California English Language Development Test (CELDT) Levels

C1 Beginning

C2 Early Intermediate

C3 Intermediate

C4 Early Advanced

C5 Advanced

C1-5 California English Language Development Test (CELDT)

Figure 2: 5E Planning Chart with an ELD Option

Learning Sequence Concept: _____

Language Objective: _____

Stage	Teacher Does	Student Does			Science Concept and Language Function
		Beginning to Early Intermediate	Intermediate	Early Advanced to Advanced	
Engage					
Explore					
Explain					
Extend					
Evaluate					

TALK, CONTINUED ON PAGE 9

Kings Canyon CaMSP Science Demonstration Center Open for Business

The Kings Canyon Science Demonstration Center is excited to be one of four Demonstration Centers selected by the CDE to provide support to currently funded California Math and Science Partnership projects and potential projects. The Center will be the “Go-To” place for a wide variety of resources for educators around the state.

A partnership between Kings Canyon Unified, California State University, Fresno and the K-12 Alliance, the Kings Canyon Center works on a three-pronged approach by functioning as a site-based, mobile and virtual endeavor. Each of the four Demonstration Centers has its own areas of expertise, and all Centers will use a Trainer of Trainers Model.

Our Kings Canyon Center has four broad support categories:

1. Providing effective professional development by modeling best practice instructional strategies through content instruction. This includes incorporating Common Core Standards and planning for Next Generation Science Standards.
2. Develop and implement successful lesson study protocols, including inquiry-based lesson design.
3. Selection of appropriate evaluation design and metrics. Guidance on CDE reporting requirements, budget management and documentation.
4. Serve as mentor to Project Directors. Provide strategies to build and maintain effective leadership teams. Working with district administration to successfully implement projects' programs.

Additionally, our Center will serve as a hub of resources for partnerships and potential partnerships. This will be accomplished through a web presence, webinars and the creation of networking events for partnerships.

Brad Schleder from Kings Canyon USD is on board as project director with Rita Starnes representing the K-12 Alliance. We'll keep you posted on how the Kings Canyon Demonstration Center is working with the CDE and projects throughout the state! ■



TALK, CONTINUED FROM PAGE 8

5E with an ELD Option (Figure 3 on page 10) is an example of a completed planning tool that emphasizes student oral language. This lesson is an adaptation from the FOSS Balance and Motion unit for grade 2. Notice that the language objective is specifically linked to the science learning sequence concept; each stage of the 5E has an explicit science concept and accompanying language function.

When appropriate, ESRs became the sentence frames or language forms for the lesson. The team found that language forms written on the board were ineffective because they were too far away from the students and their hands-on learning taking place on their tables. To correct this, the team provided each pair of students with the language forms they needed to orally rehearse their responses. The language forms were in large font and printed on sentence strips.

Early use of this planning tool found teachers separating the science learning from the language learning. Teachers would plan all of the science first and then overlay the language goals. As teachers became more expert users, they were able to simultaneously plan for both science and language – a more complete package!

In the third and final article in this series, we will discuss how language forms can drive oral rehearsal during a science lesson and impact students' written language.

TALK, CONTINUED ON PAGE 10

Figure 3. 5E with an ELD Option

Learning Sequence Concept: A stable position is achieved when all forces acting on the object are balanced, i.e., the center of mass of the object is below the pivot point. (Note: Students already know that a force is a push or pull.)

Language Objective: Orally describe cause and effect for a stable position to occur. Write a claim about stable position supported by evidence.

5E	Teacher Does	Student Does			Science Concept and Language Function
		Beginning to Early Intermediate	Intermediate	Early Advanced to Advanced	
Engage	<p>What is a stable position? Why is an object stable?</p> <p>Describe your reason to your partner.</p> <p>Write or draw your responses on the top of your chart paper.</p>	<p>Oral rehearsal: Student uses phrases such as: not falling, not moving, strong.</p> <p>Written response: Student draws a picture with labels.</p>	<p>Oral rehearsal: I put _____. The ____ did not_____.</p> <p>Written response: I put _____. The ____ did not_____.</p>	<p>Oral rehearsal: A stable position is when____ _ and _____ .</p> <p>Written response: A stable position is when____ _ and _____ happen.</p>	<p>For an object to be in a stable position the center of mass of the object is below the pivot point.</p> <p>Oral and written description of observation. Preliminary description of cause and effect.</p>
Explore	<p>Predict whether each shape and clothespin is in a able position.</p> <p>Record your predictions as yes or no.</p>	<p>Oral rehearsal: Student uses phrases such as: yes, no</p> <p>Written response: Yes (Y) or no (N) as prediction.</p>	<p>Oral rehearsal: This one is stable.</p> <p>Written response: Yes or no prediction</p>	<p>Oral rehearsal: I think the _____ is stable. If we put the _____ here, it will be stable.</p> <p>Written response: Yes or no prediction</p>	<p>For an object to be in a stable position the center of mass of the object is below the pivot point.</p> <p>Oral and written predictions.</p>
Explain	<p>Revise your explanation of stable position.</p>	<p>Oral rehearsal: Student uses phrases such as: not falling, not moving, stable.</p> <p>Written response: Student revises drawing and now uses the word stable as a label.</p>	<p>Oral rehearsal: I put _____. The ____ did not_____. It is ____ (stable). Before it was____. Now it is ____.</p> <p>Written response: I put _____. The ____ did not_____. It is ____ (stable). Before it was____. Now it is ____.</p>	<p>Oral rehearsal: I used to think a stable position was when____ and _____ . I now think a stable position is _____.</p> <p>Written response: A stable position is when____ _ and _____ .</p>	<p>For an object to be in a stable position the center of mass of the object is below the pivot point.</p> <p>Oral and written description of cause and effect.</p>
Extend	<p>Use your understanding of stable position to put the pencil in a stable position.</p>	<p>Oral rehearsal: I put _____. The ____ did not_____.</p>	<p>Oral rehearsal: If we put the _____ here, it will be stable.</p>	<p>Oral rehearsal: If we place the _____ here, then the pencil will be stable.</p>	<p>For an object to be in a stable position the center of mass of the object is below the pivot point.</p> <p>Oral description of cause and effect.</p>
Evaluate	<p>Write your claim about stable position. Give evidence to support your claim.</p>	<p>Written response: The ____ is stable. I know because_____.</p>	<p>Written response: I claim that_____. My evidence is _____.</p>	<p>Written response: I claim _____ because my evidence is _____.</p>	<p>For an object to be in a stable position the center of mass of the object is below the pivot point.</p> <p>Written description of cause and effect.</p>

K-12 Alliance Partner Stuart Suminda Named California Professor of the Year

Stuart Suminda, Professor of Biology at California State University, San Bernardino, was named the 2011 California Professor of the Year.

Sumida, a Principal Investigator with the K-12 Alliance at WestEd, was honored by the U.S. Professors of the Year, the only national program to recognize excellence in undergraduate teaching and mentoring. The award program is sponsored by the Council for Advancement and Support of Education and the Carnegie Foundation for the Advancement of Teaching.

Acknowledged as the world's leading expert in anatomical animation and digital special effects, Sumida began his long-standing association with the K-12 Alliance in 2004. He initially served as an invited speaker at project institutes and professional development workshops. Sumida later served as guest lecturer at institutes prior to assuming his current role as a Principal Investigator for a science and literacy grant in Coachella Unified School District.

"As a paleontologist who also gets to consult in the entertainment industry, I have the good fortune of participating in outreach that has a high interest factor with the public," says Sumida. "However, in the end it's all about science education for me; and the K-12 Alliance has been THE group through which I've had the largest ripple effect with educators."

Sumida is integral to the K-12 Alliance's efforts as a full-service program that builds on relationships with school districts, businesses, and institutes of higher education to improve science and mathematics education in California and nationally.

"Stuart represents the perfect IHE partner," says K-12 Director Kathy DiRanna. "He brings content expertise and real world experiences to participants, while recognizing and honoring the experience and expertise that K-12 teacher bring to the classroom. Stuart's love of learning is contagious. He models the scientific habits of mind that we want to instill in teachers and students and he embraces the ideas of continuous improvement in all walks of life." ■



Professor Suminda (center)

MULTIPLY, CONTINUED FROM PAGE 2

Diminishers and Multipliers differed on five key characteristics:

- (1) Diminishers were *empire builders* who hoarded resources and kept things under their control. Multipliers were *talent magnets* who attracted talented people and used them at their highest point of contribution.
- (2) Diminishers were *tyrants* who created a work environment of fear and judgment resulting in few taking the risk to contribute. On the other hand, Multipliers were *liberators*, creating space and freedom for people to think and create and be accountable.
- (3) Diminishers were viewed as *know-it-alls* because they personally gave directions to show their knowledge. They considered themselves the thought leaders and rarely invited others to the conversation. They ended up limiting their organization by what they themselves knew how to do. Multipliers were viewed as *challengers* who seeded an opportunity by laying down a challenge and building beliefs that it can be done. They helped others help set the direction by asking questions rather than answering them.
- (4) Diminishers acted as *decision makers* with a small group of people based on limited data. Multipliers served as *debate makers* asking all types of people for ideas, data and evidence. They would frame the issues and ask hard questions in the service of developing collective intelligence to find the best solutions.
- (5) Diminishers are *micromanagers*, holding onto ownership, jumping into every detail. The effect of having micromanagers is that people just wait to be told what to do, or hold back because they know their ideas will be nixed. Multipliers are investors who give other people the ownership for results and invest in their results. Investors may coach, but they remember to "give back the pen."

The hardest part of listening to Liz's comments came from her discussion of people who are Accidental Diminishers. It got me thinking about our roles as educators.

Take a moment. Think.

Do you come to meetings with lots of ideas and take up the group's time sharing them? Do you fix problems without giving the other a chance to solve it? Do you have an answer for every question? Then you could be an Accidental Diminisher of people's talents around you.

Liz concluded with an important message: "Whatever you are, you can get better at being a Multiplier. You don't need to be good at everything. Instead, you need to have mastery of a small number of skills and be free of show-stopper weaknesses."

Our goal in the K-12 Alliance is to be Multipliers, people who aren't afraid to share the spotlight and who are willing to truly work with others.

I challenge you to examine your behavior and see if indeed you are creating an atmosphere of Multipliers in your work environments. Think how you might accidentally diminish the powers of those around you. See how small changes can result in more creativity and renewed excitement for our tasks at hand. Let's all be fruitful and "multiply!" ■