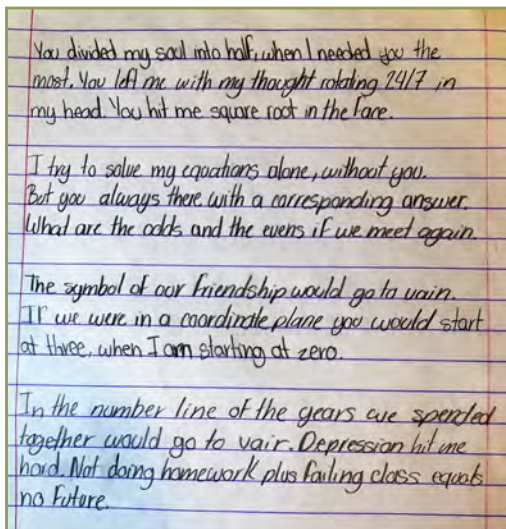# Soleado

Promising Practices from the Field

Math Poets: Mathematical Language Through Artful Expression

by Jaime C. Acosta—Mathematics Teacher, Chaparral Middle School, Gadsden Independent School District, and Erika J. Acosta—MC2-PK-12 Instructional Outreach Specialist, New Mexico State University

Snakes, Spiders & Math

There are three things most people are afraid of: snakes, spiders, and math. These fears have long plagued man. One cause of this fear is math anxiety. Research has shown that math anxiety stimulates the same area of the brain that activates when encountering snakes and spiders (Young, Wu & Menon, 2012). Young, Wu, and Menon studied brain scans of children experiencing math anxiety and found that activity is reduced in the information-processing and reasoning areas of their brains. Also, the amygdala, a region of the brain responsible for processing negative emotions, becomes hyperactive at the expense of the dorsolateral prefrontal cortex and posterior parietal areas of the brain needed for mathematical reasoning (2018). According to their study, these two areas of the brain are connected; math anxiety interferes with a student's ability for mathematical performance and reasoning.

Students in Dr. Acosta's middle school mathematics class write poetry using math vocabulary.

Second/Foreign Language Anxiety

Understanding the role and the importance of math anxiety in math instruction is important in helping students understand and perform mathematics, however, language acquisition anxiety may also be present when English learners are being taught to read, communicate, and write in mathematics.

Anxiety associated with learning a second or foreign language is considered a multidimensional phenomenon (Hashemi, 2011). It can be defined as "a subjective feeling of tension, apprehension, nervousness, and worry associated with the arousal of the automatic nervous system" (Macintyre & Gardner, 1994). According to Horwitz (1986) feelings of second/foreign language anxiety target the two fundamental requirements of foreign language learning, listening and speaking. Recognizing anxiety is a psychological construct, likely stemming from the learner's self-perception as an intrinsic motivator (Hashemi, 2011); math and second language anxiety is a compound hurdle for English learners in mathematical instruction and an important factor in developing a learner's mathematical language. Recognizing the role anxiety plays in students' learning led us to consider ways to help our students overcome it.

The Language of Mathematics

Mathematics is a modern and specialized language with concepts and symbols that

Planning for the Bridge in a Chinese-English Dual Language Program

by Dr. Ying Fiona Du—Chinese Interventionist, Carver-Lyon Elementary Language Immersion School, Columbia, SC

My school, Carver-Lyon Elementary, hosts a dual language immersion program in the state of South Carolina. Our program started in August 2016 with Pre-K and Kindergarten classes. We have added one grade level each year and currently offer Spanish and Chinese dual language classes at all grade levels and one Kinder French class. Our program adopted a 50/50 language allocation model—students spend half of the day learning math, science, and literacy taught in one of the three target languages (French, Spanish, or Chinese) and half of the day learning English language arts and social studies taught in English. We have also adopted a biliteracy curriculum that integrates content with literacy development in both languages, and oral language with reading and writing skills.

Our language immersion teachers and their English-language teaching partners work together to teach the learning objectives of each unit. In an effort to more effectively develop our students' literacy development in two languages, we have recently begun to incorporate Bridge experiences (Beeman & Urow, 2013).

Teachers in the Chinese-English dual language program help students bridge vocabulary from one language to the other using TPR.

According to Beeman and Urow in their book *Teaching for Biliteracy: Strengthening Bridges between Languages,* (2013):

The Bridge occurs once students have learned new concepts in one language. It is the instructional moment when teachers bring the two languages together to encourage students to explore the similarities and differences in the phonology (sound system), morphology (word formation), syntax and grammar, and pragmatics (language use) between the two languages, that is, to undertake contrastive analysis and transfer what they have learned from one language to the other. The Bridge is also the instructional moment when teachers help students connect the content-area knowledge and skills they have learned in one language to the other language…An important aspect of the Bridge is that it is two-way. It goes from Spanish to English and from English to Spanish. It recognizes that because bilinguals transfer what they have learned in one language to the other language, they do not have to learn content in both languages, even when they are tested only in English. (p.4)

Based on the theory and guidelines presented in Beeman and Urow's book and their webinars, where they recommend the Bridge be done at the end of a robust unit of instruction, our school adopted a two-part model for the Bridge and implemented it for the first time a few weeks ago. During the **first part**, teachers and students create a vocabulary chart for the content unit by transferring what they have learned in the target language to English, or vice versa. For example, a two-column chart of vocabulary on animal classification and habitat was created in the second-grade Chinese language immersion class. The ELA teacher listed key vocabulary on the left side of the chart. The Chinese teacher brainstormed the Chinese equivalent with the students, using visual aids and body language to stimulate students' prior knowledge and then added those words to the right side of the chart. In the Kindergarten class, the Chinese teacher pointed to the image of a shape with the Chinese word written above it and led the students in practicing the word in Chinese. The ELA teacher asked the students the name of the shape in English and wrote the students' correct response next to the Chinese word.

During the **second part** of the Bridge, the teachers and students work together to create a contrastive chart of similarities and differences between English and Chinese to develop the students' metalinguistic awareness and support their linguistic approximations in the two languages. For example, in one class the Chinese teacher compared the word formation of some words, e.g., amphibious (amphi-bious) 两栖 and triangle (tri-angle) 三角. As our teachers become more familiar with planning and implementing Bridge experiences, we hope to implement them at the end of each science unit. By next year, our teachers will certainly progress in the knowledge and skills for teaching the Bridge collaboratively.

I created the *Contrastive Analysis between English and Chinese* to help Chinese biliteracy teachers conduct a linguistic analysis of the two languages to plan for the metalinguistic talk in the second part of the Bridge. Our Spanish-English dual language teams have made great use of the Four Areas of Contrastive Analysis developed by Beeman and Urow (p.142). I was careful to include similarities and differences between English and Chinese in phonology, morphology, syntax and grammar, and pragmatics and cultural preferences of language use. Even though Chinese is not as closely related to English as Spanish or French, there are still some common linguistic features between the two languages that teachers can demonstrate to students during the second part of the Bridge experience. These linguistic connections make Chinese language a little less remote and more easily understood. The contrastive analysis of the two languages can also help students avoid common mistakes made by English speakers. In preparation for the second part of the Bridge, Chinese biliteracy teachers can:

✳ study this chart and become familiar with the major linguistic similarities and differences relevant to the development of biliteracy.

✳ create a list of agreed-upon key vocabulary from a completed content unit to transfer, along with examples of sentence structures or language use.

✳ examine the linguistic features of the vocabulary, sentence structures, and language use to see if they match information in the chart and plan a metalinguistic focus from there. It is important to remember that not every Chinese word will have similar features as the word in English—focus on those that do. For example, some food vocabulary are phonetic loanwords, and a contrastive chart can be created with them: hamburger 汉堡, pizza 比萨饼, cheese 起司/奶酪, pie 派, salad 色拉, soda 苏打饮料, Coca Cola 可口可乐, chocolate 巧克力, etc.

✳ focus on one or two linguistic domains in one Bridge experience, e.g., morphology and pragmatic usage, or phonology and sentence structure.

✳ add example of vocabulary and sentence structures to the appropriate categories on the chart after the Bridge to further develop this resource and make it handy for future use.

✳ include the number of words and sentence structures in your Bridge plan. I recommend teaching no more than 10 transfer words per experience.

This chart is meant to be a quick reference for Chinese biliteracy teachers at K-G5 levels, therefore all the examples are embedded in the social and academic language that Chinese language immersion students of this age group need to learn. The linguistic information included in this chart comes from my teaching experiences. Your teaching experiences may expose you to other linguistic information students need. This is a living document—you are welcome to add your contribution by contacting me at *yingfdu@gmail.com*. I look forward to your feedback!

Contrastive Analysis Between English and Chinese	
Element and Area of Focus	**Examples**
Phonology (sound system) • Sounds that are **different** in the two languages	1. English is an *alphabetic language (字母语言)* and one word can have up to five syllables—*multi-syllables (多音节)*. winter (win-ter, 2 syllables) demonstration (de-mon-stra-tion, 4 syllables) 2. Chinese is an *ideogramic language (表意语言)* with four *tones (四声)* and each *word (字)* has only one syllable—*mono-syllable (单音节)*. Compound words *(词)* are composed with two-four individual words *(字)*. 冬 （dōng, 1 syllable, 字, winter） 冬天 (dōng tiān, 2 syllables, 词, winter) 示范 (shìfàn, 2 syllables, 词, demonstration) ---
• Sounds that are *similar* in the two languages	1. *Phonetic loanwords 外来语音词* from English to Chinese and vice versa **from English to Chinese** bus 巴士 sofa 沙发 McDonald's 麦当劳 jazz 爵士 T-shirt 体恤衫 hamburger 汉堡 marker 马克笔 soda 苏打(饮料) chocolate 巧克力 **from Chinese to English** 功夫 kung fu 茶具 china
Morphology (word formation) • Formations that are **different** in the two languages	1. English words are made of twenty-six alphabets that designate certain meanings—*arbitrary designation (任意指定)*. The alphabets themselves do not have meanings. table forest love home meal 1. About 80% Chinese words are *pictophonetic (形声)*—with one element, mostly *radicals (部首)* indicating meanings or associations of meanings *(形部)* and the other element, sound *(声部)*. 桌子 森林 **爱** 家 饭 2. About 8% Chinese words are completely *pictographic (象形)*—each word depicts a picture. 人 山 日 月 木 水 火 --- 1. Some English and Chinese words have similar *morphological pattern (词形组合)*.
• Formations that are *similar* in the two languages	computer (compute+er) 计算机 (计算+机) teacher (teach+er) 教师 (教+师) writer (write+er) 作者 (作+者) actor (act+or) 演员 (演+员) classroom (class+room) 教室 (教+室) playground (play+ground) 操场 (操+场) hardware (hard+ware) 硬件 (硬+件) software (soft+ware) 软件 (软+件) television (tele+vision) 电视 (电+视) birthday (birth+day) 生日 (生+日) 2. The *prefix (前缀)* and *suffix (后缀)* in English have the similar function as the *radicals (部首)* in Chinese. All of them are standard components of certain meanings that are used repeatedly to form words in both languages. **er, or (person 者)** teach<u>er</u> work<u>er</u> compos<u>er</u> design<u>er</u> profess<u>or</u> act<u>or</u> janit<u>or</u> conduct<u>or</u> **-tion (verb to noun 由动词转化的名词)** introduc<u>tion</u> organiza<u>tion</u> prepara<u>tion</u> implementa<u>tion</u> **木 （tree/wood)** 林 森 桌 椅 **心 (heart)** 想 思 慈 感

Strategies That Hang Together: Your New Best Friend

by Jennifer Lisle—Language Acquisition Specialist, Yakima School District, Yakima, WA

First off, let's address the elephant in the room. You've gone through Project GLAD® Tier 1 Foundations (Research and Theory Workshop + the classroom demo), and you think to yourself, "I just spent six days learning this stuff; I should be able to implement it right away. But I feel overwhelmed. I don't know where to start." Now, if this is NOT you and you're implementing all the strategies in one fell swoop, successfully rocking GLAD® in the classroom like a boss…well, then this article is probably not for you. Carry on. You are an educational ninja, and I applaud you.

However, if you're like me, your journey probably looked more like this: I went to the Research and Theory Workshop, tried my best to listen and absorb, and long about day 2, the strategies all started to run together. I thought, "It's all good. I'll see it in the classroom demo and all will be right with my world." Then…nope. They moved quickly to fit all the strategies in for me to see, and they said MULTIPLE TIMES, "This would be rolled out over 4-6 weeks of instruction…" *but somehow, I didn't hear that*. I left with all kinds of ideas and no direction. So, I put that binder on my shelf with the intention of revisiting all the

A Chant introduces key vocabulary; a Graphic Organizer covers key concepts; a Learning Log provides an opportunity for students to reflect.

strategies that had been shared, but you know what they say about good intentions... Does this sound familiar to you, dear reader? If so, take heart and read on. We've got some work to do, and when you're done reading this article, you may have a clearer path to attempting some of this magic in your own classroom.

So, let's fast forward a bit—after 25 years in the classroom, I'm now a language acquisition specialist for my district. Basically, it means that I help teachers with GLAD® in their classrooms, offer PD sessions and refreshers, and work with my department with all things pertaining to multilingual learners. It also means that I'm pursuing my GLAD® Tier III Trainer certification with our local Tier IV trainer and rock star extraordinaire, Bridget Dale. Bridget has given me many ideas and much support toward my work. Then came the gift of Natalie Olague, a Dual

Language Education of New Mexico (DleNM) Program Coordinator and Project GLAD® Tier III trainer. As I was trying to find my way in this new position and worrying that my participants would be overwhelmed with too much information, Natalie had a great suggestion: present two strategies that "hang together" or build on one another.

As I planned for refresher sessions, I realized something else—most of our teachers focused only on Focus and Motivation, Input, and Guided Oral Practice strategies—just as I had done myself. Almost no one had linked those activities to the Reading and Writing strategies. So, here are a couple of jumping off points that I think may help you move from input to writing.

1. Identify the standard you are teaching to and pick an Input or Guided Oral Practice strategy that best addresses that standard (or set of standards). For example, if you are teaching life science and students are learning about the life cycle of an animal, a Pictorial Input Chart is a great way to introduce vocabulary and concepts. The color coding of each component of the chart allows for student brain imprinting and supports recall. Or use a Narrative Input Chart to make the text or concept comprehensible to your students. Even though the Narrative Input Chart is intended for a narrative story, feel free to use it with informational text. You might even want to use a Chant that embeds academic content and language into a fun and engaging learning experience. When you highlight vocabulary and support them with images, you bring those charts to life and make core concepts and language accessible. But WAIT! You're not done. You can't leave all that rich language hanging on the wall. You need to get the students to put it down on paper. How do we do that? Read on, all you teaching wizards; it's about to get good.
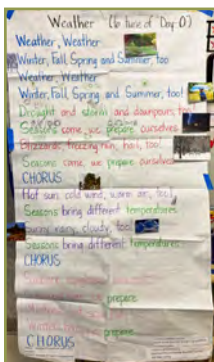
2. Pick a Reading and Writing strategy that pairs with your Input or Guided Oral Practice strategy. One of my all-time favorites is the Learning Log. This strategy can connect to almost any other Input or Guided Oral Practice strategy and requires only that you develop a prompt for students to make a text-to-text and text-to-self connection.

3. From there, maybe you establish Expert Groups around the categories of information on your Pictorial. Or, maybe you develop a Process Grid as a whole class and then establish expert groups to learn the information needed to complete the grid. You might choose to have students create their own chant around a different concept of the unit in teams or individually. Or, if you teach the littles in K/1, maybe you're working on a Whole Class Group Frame pulling information from the Pictorial to develop sentences. Does the Learning Guide recommend that you develop a Process Grid first? Yes, yes it does. Does that mean that you absolutely cannot use it if you don't have one? **Nope**. As Natalie reminded me: you must ask yourself…what is your goal? Are you modifying the strategy to meet your goal, or are you mutating it? Identify your goal and use the strategy to meet that goal—make sure the integrity and purpose of the strategy stays intact.

4. Listen, *of course* the power of Project GLAD® comes from a whole unit of instruction that beautifully dovetails together and goes from Focus and Motivation all the way to Extensions and Assessments. But whole units are intimidating. Instead, pick two strategies that hang together and refine them. Use them across your core areas. Get in there and get messy and expect that your first time out will not go as planned. It may bomb completely. Then, you'll pick up the threads and weave a new lesson, refine your practice, and do it all over again.

Another issue that often prevents teachers from tackling an entire GLAD® unit is the issue of **time**. We just don't have enough of it, and when teaching blocks are 30 minute (or less!), the question arises, "How will I fit this strategy in with so little time to do it all?" And the answer is: *you don't have to do it all at one time.* What you saw in the demo where the GLAD® trainer presented an entire Pictorial Input Chart in one session is NOT reality. It was done that way to show you how to present the strategy and what it is supposed to look like when it is complete. The reality is that you can present one color-coded section over multiple days. Present one section one day and another section the next day, and

so on. Add sketches and Picture File Cards another day. The deal is this: *the more often you return to and process that one chart, the more your students will learn from it.* It also saves you time—you will prep one chart and get multiple days of instruction out of it. When in doubt, SLOW DOWN. Remember, you are increasing language acquisition and deepening core subject understanding. This takes time. Rome wasn't built in a day, as they say, and neither will your Input become comprehensible to students if you rush it.

Here are some examples of strategies I've used together in various classrooms. All of these lessons were based on the existing district-adopted curriculum for that grade level. The instructional information presented was gleaned from the text and the Literacy Awards were created from the vocabulary in that curriculum. Each of the paired strategies described were rolled out over MULTIPLE days of instruction. A couple of things you won't see, but were present in every lesson:

✴ 10/2's—every time I processed a Chant, a chart, or other form of input, my students needed time to process that information. So, I would pause and provide a prompt for my students to turn and talk.

✴ I used Literacy Awards with Scouts to reinforce the Three Personal Standards or whatever behavior expectations the school or teacher used.

In the Kindergarten example pictured on page 4, I used a Chant, a Graphic Organizer and a Learning Log based on a weather unit that came from the science curriculum. Please note the color chunking on the graphic organizer—ideally done over many days, one section at a time.

The 1st grade example below shows two strategies that worked well together. First, the teacher taught a science unit on space and objects in the sky. We created a Mind Map from the information the teacher front-loaded using the text from the curriculum. That information fed into a Cooperative Strip Paragraph. At the time that I took the picture, more revisions were needed. The teacher had 20-minute time blocks to focus on science, so we spread the lessons out over a week.
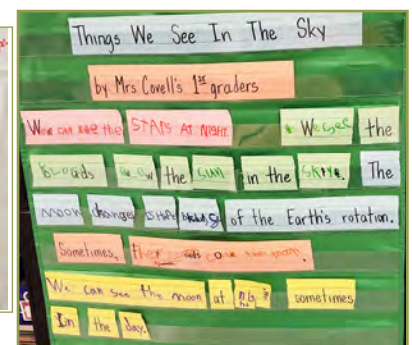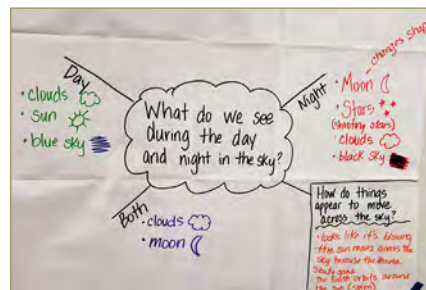
A Day in the Life of a Middle School Dual Language Student

by Yanira Gurrola—Professional Development Coordinator, DLeNM

Hello! My name is Berenice and I am a student in a dual language middle school in Albuquerque, NM. When I enrolled in 6th grade, I was not part of the dual language program, but I asked my mom to move me into the program at the beginning of 7th grade. My cousins are in the program and they talk a lot about how much they are learning and how much fun the teachers are! I have always spoken Spanish at home, but I was never enrolled in a bilingual program in elementary school. Maybe it's because I was born here, but I sure wish I had been able to participate in one. My first years in school were not easy—my family didn't speak English and my teachers didn't speak Spanish. Now, as an 8th grader I'm excited to be using both languages in school and be able to present a bilingual portfolio at the end of the school year.

Berenice's (center) cousins encouraged her to enroll in the middle school dual language program.

8:15-9:16 AM - 1st Period - Estudios Sociales

Mi primer periodo es con el Sr. Sánchez. Antes de empezar la clase me pregunta por mi mamá; el se enteró que se lastimó un brazo en el trabajo. Para comenzar la clase, el Sr. Sánchez proyecta una pintura en el pizarrón. Dice que se llama *Progreso estadounidense* de John Gast de 1872. Nos pide que con la persona que está a nuestro lado describamos lo que vemos. Luego nos pide que compartamos nuestra conversación. Yo levanto la mano y digo que veo un ángel que flota desde el este hacia el oeste,

que sostiene un libro y un cable del telégrafo. Mi compañera Eva dice que también hay indígenas sin camisas, y que un lado es más oscuro que el otro. El Sr. Sánchez nos dice que esta idea de que los colonos de EE.UU. debían mudarse al oeste y tomar la tierra de los nativos americanos se llamó Destino manifiesto. Es por eso que John Gast llamó a esta pintura *Progreso estadounidense*, porque el progreso significa que algo está mejorando.

Luego, el Sr. Sánchez nos da cuatro preguntas y nos pide que las contestemos en oraciones completas:

> ¿Cómo ayudan las dos cosas que tiene en las manos a que la pintura sea una representación del "progreso estadounidense"?

> ¿Qué más agrega la pintura al mensaje general de que la expansión hacia el oeste fue también la difusión del progreso estadounidense?

> ¿Cómo usa el pintor la oscuridad y la luz para contribuir a esa idea?

El Sr. Sánchez nos dice que podemos contestar la pregunta solos o con otro estudiante. Yo prefiero contestarlas sola.

Luego, el maestro nos pasa una tarjeta de 3 por 5 pulgadas. En la tarjeta vamos a dibujar lo que entendemos sobre el concepto de "destino manifiesto".

Mi dibujo es todo el país de Estados Unidos, y un Pac-Man que empieza del este y va alimentándose hacia el oeste. A su paso va desmantelando lo que existe y alterando las culturas que se encuentra. Para mí, el destino manifiesto suena ambicioso y agresivo. Es por eso que agrego una bandera representando al gobierno federal.

Los últimos momentos de clase son para asegurarme de poner mi trabajo en mi cuaderno y que lo agrego al índice. El Sr. Sánchez revisa los cuadernos frecuentemente.

9:20-10:18 AM - 2nd Period - Language Arts

After my social studies class, I go to Ms. Córdova's class. She always greets us at the door with a big smile and when I ask her, "How is your day going?" She always answers, "It couldn't be better!" We call her *La Jefa*!

There are goals and objectives on the board. Last week, the principal considered giving the students a dance, but after some kids were fighting she said that

she wasn't sure that we had earned that privilege and was thinking of canceling it. We asked Ms. Córdova to intercede for us, but instead she decided that this was going to be our assignment: the 8th graders will write to our principal and explain why we deserve a dance. Last week Ms. Córdova showed us examples of persuasive texts. We studied examples of letters that justified opinions, created an outline, and wrote our first drafts. Ms. Córdova reviewed our drafts and gave us feedback. Today we will present our letters to the principal. We're pretty nervous about it, so Ms. Córdova is giving us time to practice reading the letter to one another.

The students' persuasive letters worked! The 8th graders got their dance.

When the principal arrives to the class, some of us volunteer to stand up and read it out loud before handing it to her. After I read my letter, I am sure I did good; I could see Ms. Cordova and our principal smiling. The principal said she will give us an answer by the end of the week after she reads all our letters. We are excited because it seems as if we are succeeding in our quest! Ms. Córdova dismisses the class.

10:22-11:20 AM - 3rd Period - Matemáticas

Mi siguiente clase es matemáticas. Cuando entro y me acomodo en mi lugar tengo que ver el pizarrón para saber qué es lo que tengo que hacer. La maestra Gurrola escribe la actividad de inicio y nosotros debemos empezar con eso en cuanto suena el timbre. Mientras la maestra toma lista, me puse a resolver las ecuaciones de la actividad de inicio. Luego, en la parte de arriba de mi cuaderno interactivo escribo la pregunta esencial del día que está escrita en el pizarrón. Hoy estamos aprendiendo a resolver sistemas de ecuaciones

Los cuadernos interactivos siguen las notas Cornell.

usando el método de eliminación. Ya escribí en mi cuaderno el objetivo y la pregunta esencial: ¿Cuál es la diferencia entre resolver un sistema de ecuaciones usando sustitución y eliminación? También tengo que poner preguntas de nivel 1 o 2 en la columna del lado izquierdo de la hoja derecha.

Cuando terminamos, la maestra Gurrola nos da tarjetas con números del 1-4. Escogemos una y a mí me tocó el #2. La maestra nos pide que vayamos a otro equipo de acuerdo al número que nos tocó. En mi nuevo equipo somos seis estudiantes. Ahí nos asigna un ejemplo del libro—hay un problema resuelto y otros sin resolver; nosotros trabajamos en el ejemplo #2. Después de estudiar el ejemplo ya resuelto, dividimos los problemas en dos partes. Cuando terminamos nos explicamos unos a otros los problemas que hicimos y completamos los que faltaron. La maestra camina entre las mesas revisando que no tengamos dudas y ayudándonos. Cuando terminamos el ejemplo y comprobamos las respuestas, regresamos a nuestros equipos. Ahora tenemos que resolver un problema de cada ejemplo. Como yo soy experta en los problemas del ejemplo #2, mis compañeros me piden ayuda con ese sistema de ecuaciones, pero yo también les pido ayuda a ellos con los otros que ellos hicieron. La maestra nos da 20 minutos para esta actividad, y pone el "timer" en el pizarrón. Después de los 20 minutos, la maestra nos pregunta si necesitamos más tiempo y nos da otros 5 minutos.

Al terminar los cuatro ejemplos, la maestra nos da un problema de palabras. Cada persona en el equipo tiene un problema diferente; tenemos que leer el problema y escribir las ecuaciones. Cuando la maestra nos lo indica pasamos la hoja a nuestro compañero de la derecha. Reviso lo que mi compañera escribió y le comento usando enunciados completos si estoy de acuerdo o si le cambiaría algo y porqué. Cuando acabo, tengo que pasar mi hoja a mi compañero de la derecha y repetir el proceso. Jorge, uno de mis compañeros de equipo necesita más tiempo. Ya sabemos que cuando eso pasa, nos brincamos a ese compañero y pasamos la hoja al que sigue, así le damos más tiempo a quien lo necesite. La maestra nos da tiempo de aclarar dudas entre nosotros y luego de pegar la hoja en nuestro cuaderno.

Antes de salir, tenemos que contestar la pregunta esencial—es nuestro boleto de salida. La maestra revisa nuestras respuestas conforme vamos saliendo del salón. Mi respuesta estaba incompleta porque no usé la pregunta en mi respuesta. Tuve que regresarme a completarla; lo bueno es que sigue el receso. La maestra Gurrola también me pregunta sobre mi mamá. Ella conoce a la familia porque fue la maestra de mis primos. Aprovecho para invitarla a nuestra presentación del grupo de Mariachi la próxima semana. Ella siempre va.

Making the 3rd Dual Language Goal Real with Teacher-Created Curriculum

by María Treviño and Toby Rose—Briarcrest Elementary School, Shoreline, WA
with Natalie Olague and Diana Pinkston-Stewart—DLeNM

The three goals or pillars of Dual Language Education are (1) Bilingualism and Biliteracy, (2) High Academic Achievement, and (3) Sociocultural Competence. With such a strong focus on the academic goals, the 3rd goal—all DL students will demonstrate sociocultural competency, has sometimes been overlooked. One reason may be because it is difficult to demonstrate something so complex and abstract. Howard et al (2018) define sociocultural competence as including identity development, cross-cultural competence, and multicultural appreciation. DleNM's work with DL programs throughout the nation has uncovered an additional layer of this 3rd goal, especially in the current sociocultural context in which we find ourselves: demonstrating critical consciousness, or "the ability to recognize and analyze systems of inequality and the commitment to take action against these systems" (Friere, 1968).

Briarcrest Elementary in Shoreline, WA has 444 students. In 2017, we started a dual language program at kindergarten and 1st grade and have added a grade every year. There is currently one dual language class in each grade from kindergarten through 5th grade with a total of 130 students. In 2019, Briarcrest DL staff participated in an *El Enriquecer program planning* retreat with DLeNM and *Teaching for Biliteracy* professional development with Karen Beeman and Cheryl Urow. The DL teachers then got together to develop units using the Biliteracy Unit Framework (BUF). BUFs feature six instructional stages that provide the integral skills and information that lead to the development of biliterate students (Beeman & Urow, 2013). We decided to develop our units with a focus on supporting students in attaining

Project GLAD® strategies follow a gradual release of responsibility: the teacher models whole-group, small teams of students practice, and students complete their work independently.

the 3rd goal of DLE in science, social studies, and language arts content. As a result of the move to online learning during the pandemic, DLeNM partnered with Briarcrest DL teachers to modify the previously developed units to be used online. During this process it became clear that the integration of Project GLAD® strategies into the BUFs would greatly enhance the units and provide the most effective DL learning - online or in-person. In essence, we "GLAD®ified" the BUFs! With the "what" clearly defined in the existing BUFs, we focused on the "how" using Project GLAD® strategies built on the notion of a gradual release of responsibility.

Kindergarten Unit: Advocating for Myself and Respecting Others – Sra. María Treviño

The Learning Targets for this unit are:

- Language Arts Content - *I can tell how characters in a story are different. I can tell how characters in a story are the same.*

- Language Focus- *I can use compare and contrast vocabulary to talk about the characters in a story.*

- Sociocultural Competency (3rd goal of DL) & Social Studies Content - *I can make connections between the story's characters and my own personal life experience* (identity development). *I can have a different opinion than my classmates and still be respectful* (cross-cultural competency).

Sra. Treviño started the unit with several Project GLAD® strategies that provided the students with multiple entry points:

✳ Observation Charts to access their prior knowledge,

—continued from page 8 —

✴ an Inquiry Chart focused on communities (¿Qué sabes de las comunidades? ¿Qué te preguntas sobre las comunidades?) to focus and motivate students as we began our unit of study and provide me with a sense of what my students already knew,

✴ a Picture Dictionary to define three different types of communities - la ciudad, el vecindario and el campo and introduce key vocabulary, and

✴ a Communities Graphic Organizer Input Chart to directly teach unit concepts.

These scaffolds served to prepare the students for the main reading selection: *Querido Primo* by Duncan Tonatiuh (2010). *Querido Primo* was delivered as a Narrative Input Chart; preselected images from the book were animated electronically while I read the story aloud. The animation first showed a screen-sized picture and then placed the picture on a setting background so that students could see the story unfold. The images below show this process, which was used because of the limitations of online instruction.

For the next part of the unit, Ms. Treviño used a Comparative Input Chart to compare the two main characters in the story and practiced "walking" the chart and building comparative sentences. Words and pictures on the Comparative Input Chart were pointed out and students practiced writing their own comparison sentences and recorded themselves reading them aloud on Seesaw.

A digital Comparative Input Chart provided the language that allowed students to write their own comparative sentences and record them on Seesaw for the teacher to assess.

As part of this BUF, a Bridge experience was planned—an intentional point at the end of a robust unit of study in which teacher and students together transfer concepts and vocabulary from one instructional language to the other (Beeman & Urow, 2013). Vocabulary and comparison words from the Comparative Input Chart were transferred from Spanish to English. For the extension activity into English, students were asked to name their favorite game. Their responses were used to build comparison sentences.

As Ms. Treviño reflected on implementing this unit with the integrated GLAD strategies, she noticed that her students were more engaged (even with them being online!). The strategy design provided access for kids at all language levels, and Ms. Treviño was able to see what the kids learned regardless of their writing skills (i.e., the students could draw a picture and record themselves reading

must be learned (Esty, 2022). Similarly, even if you can do some math, you may not be able to read math. According to Etsy (2022), to be fully proficient in the symbolic language of mathematics you should be able to efficiently read, write, learn, and think mathematical thoughts. Developing the language of mathematics is an essential aspect of teaching mathematics to students and continues throughout an individual's mathematics education (Riccomini, Smith, Hughes & Fries, 2015).

The Gateway to Mathematics

When I first started college, I struggled with understanding math. I had dropped out of high school and had not received the mathematics instruction my classmates had received, so to describe me as lost in math would be considered an understatement. I was a few years younger than my classmates, but I knew the importance of getting a college education. I had to find a way not to fail again. It was during my second attempt at basic college math that I realized I could not interpret what the math professor was saying. I could not connect linear equations, functions, or distributive properties to any prior knowledge I had. One day, I was flipping through the pages of my math books and, in the back of the book, I found a mathematical glossary. It became the cipher I desperately needed for the language of mathematics. I studied the math words intensely. I attached the words to the pictures. I tried to use the words in sentences, speaking them out loud, and finally connecting them to mathematical strategies and properties.

The Cipher: Mathematical Vocabulary

Providing appropriate academic language support is important for all learners, especially in the mathematics classroom, where the ongoing development of explicit mathematical vocabulary is essential (Bay-Williams & Livers, 2009 cited in Riccomini, et al., 2015). There are three main purposes for teaching essential vocabulary in mathematics. According to Riccomini, et al. (2015), the first is to provide initial instruction to promote the understanding and storage of word meanings in long-term memory. Second, and only after students have developed that understanding, the goal becomes to help students become fluent and maintain the words' meaning over time. Third, the result of achieving the first two goals is that students can easily and accurately use the language of mathematics to explain and justify mathematical concepts and relationships. Without the instructor first teaching basic understanding and facilitating fluency with vocabulary words, the purposeful and effective use of the language of

mathematics will not occur (Riccomini et al., 2015).

Vocabulary supports comprehension. However, approximately 70% of students in middle and high school experience difficulties with vocabulary and reading comprehension (Biancarosa & Snow, 2004). All students, including English learners and students with learning disabilities, benefit from explicit vocabulary instruction. A focus on mathematical vocabulary helps students explain, justify, and otherwise communicate mathematically and is important to the overall development of mathematical proficiency.

Math Poets

During an early morning ride to school, my wife, who at the time happened to be an awesome 6th-grade math teacher, discussed with me this trifecta of a problem; the acquisition of the language of mathematics, the fear and anxiety of mathematics, and English learners acquiring a third language: math. I shared with her my story of how I found a cipher to the language of mathematics in the glossary at the back of my college math book. She in turn, shared her experiences acquiring English as a first-generation English learner. During that early morning drive, we developed a creative poetry lesson to help our students develop mathematical vocabulary. This activity promotes the language of mathematics through artful expression and reduces the fear of mathematics.

Lesson Preparation

We began this activity by clearly defining our math objective in which students would be able to connect math terms to the real world. Our language standard indicated students use clear definitions in discussion with others and in their own reasoning. WIDA's English Language Development (ELD) Standard connecting language development and academic content learning was addressed by having all students, including the English learners, communicate information, ideas, and concepts that are necessary for academic success in the content area of mathematics.

Materials/Key Vocabulary

This cross-content activity required the frontloading of key vocabulary terms and the introduction of the *structure* of a poem to help students in this activity. These structures, or elements of poetry, include meter, rhyme, scheme, verse, and stanza, which were important vocabulary terms to introduce. Visual examples and graphic organizers displaying poetry

elements supported students with the background knowledge needed to participate in this math activity.

Motivation

We began the lesson by referencing the math word bank that every student in our school has and asking them to list math words they remembered from kindergarten to their present grade level. They were then asked to cross out any word that they were not able to define orally. Once the students had individually written their math vocabulary list, a math poem, supported by images, was read to them. Vocabulary was reviewed and explained through the visual representation and discussed as a whole group. Stanzas and verses were emphasized, while rhyme, meter, and scheme are mentioned but not highlighted. The students were then given the task to create their own Math Poem using their list of math vocabulary words. Students used various tools to verify the meaning of words.

This activity required students to make numerous edits. They were required to edit grammatically and verify that the math terms were used appropriately. Students read their math poems over and over again and edited accordingly in order to meet their personal standard of excellence. Once all students completed their math poem, a gallery walk provided an opportunity to applaud others' work. Students who wanted to stay anonymous wrote their names on the back of their poems, while others offered an alias to hide their identity.

The importance of vocabulary development in any language is crucial in learning how to write, speak, and understand mathematics as a language. Van der Walt (2009) emphasized that vocabulary within the language of mathematics is an aspect of instruction that requires specific attention. We have discussed the importance of recognizing anxiety prior to instruction and its impact on learning. The activity presented promotes mathematical vocabulary development using a cross-content activity that incorporates instructional best practices and may help engage students in mathematics in contrast to more traditional computational approaches.
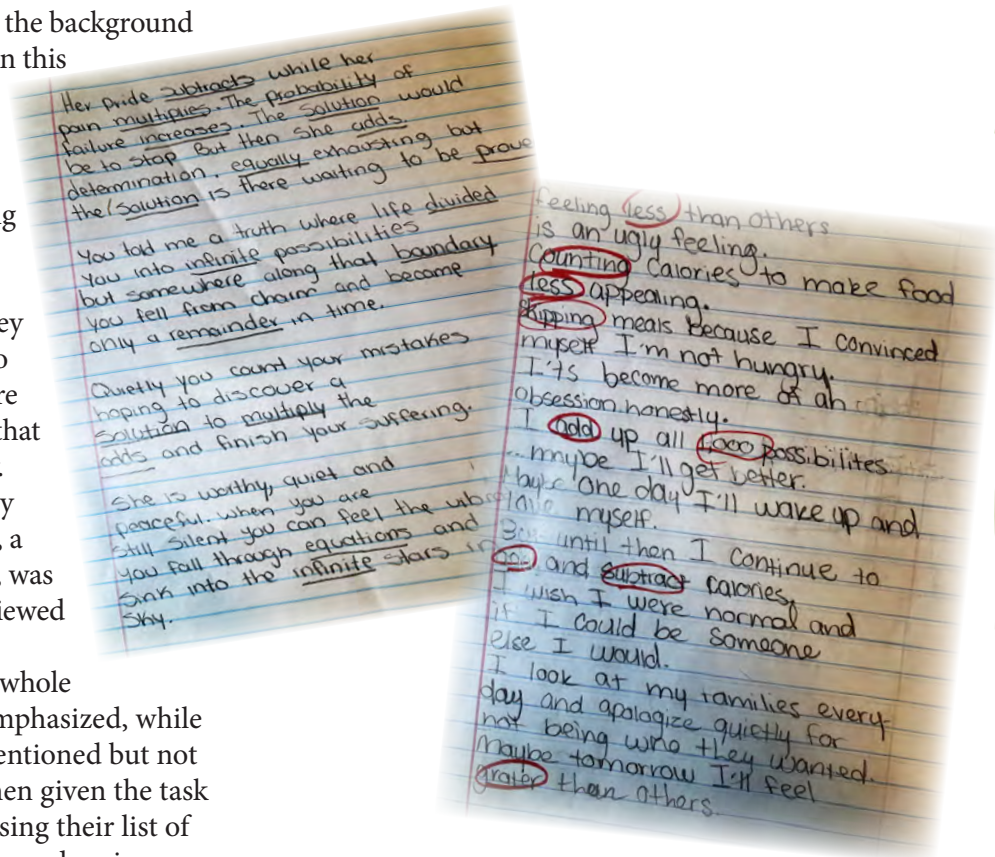
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Syntax and Grammar (sentence structure)

- Syntax & Grammar that are **different** in the two languages

1. English uses *verb conjugations* (动词变位) to denote different tenses, voices, modes and singular vs plural. Chinese has no verb conjugations. Instead, it uses *time phrases* (时间短语) and *particles* (助词) or *auxiliary verbs* (助动词) to denote above differences.

Tense 时态

I go to school every day. (present tense 现在式)

I went to the school yesterday. (past tense 过去式)

I am going to the school right now. (continuous tense 进行时)

I have been to the school for six years. (present perfect tense 现在完成时)

I will go to school next week. (future tense 将来时)

我每天都上学。(助词--都)

我昨天上学了。(时间短语--昨天，助词--了)

我正在去学校。(助词--正在)

我上了六年学了。(助词--了)

我下个星期要上学。(时间短语--下个星期，助动词--要)

Voice 语态

I turned off the light a moment ago. (active voice 主动式)

The light was turned off by someone a moment ago. (passive voice 被动式)

The light has been turned off already. (passive voice 被动式)

我刚才关灯了。

灯刚才被人关掉了。(助词-被)

灯已经被关掉了。(助词-被)

Mode 语气

I would have been at the school if I were not sick yesterday. (subjunctive mode 虚拟语气)

如果我昨天没有生病就会来上学了（我昨天没上学）。(助动词--会，助词--就，了)

Singular vs Plural 单复数

I go to school every day. (first person singular 第一人称单数)

We go to school every day. (first person plural 第一人称复数)

You go to school every day. (second person singular or plural 第二人称单数或复数)

She goes to school every day. (third person singular 第三人称单数)

They go to school every day. (third person plural 第三人称复数)

我每天上学。

我们每天上学。

你每天上学。

你们每天上学。

她每天上学。

他们每天上学。

1. English and Chinese have different *sentence order* (语序) when it comes to *interrogative sentences* (疑问句), adverbs/adverbial phrases of time, place and manner (时间，地点，方式状语).

Interrogative Sentences (疑问句)

Is this answer correct? (subject and verb reversal 主谓逆转)

这个答案对吗？(no subject and verb reversal 主谓不逆转)

Who are you? (subject and object reversal 主宾逆)

你是谁？(no subject and object reversal 主宾不逆转)

When did you come? (subject and adverb reversal 主状逆转)

你什么时候来的？(no subject and adverb reversal 主状不逆转)

Adverbs of Time, Place and Manner (时间，地点，方式状语)

I eat breakfast at 7:15 every morning. (adverbial phrase of time is after verb)

我每天上午 7:15 吃早饭。(时间状语在动词前面)

I eat breakfast in my classroom every morning. (adverbial phrase of place is after verb)

我每天上午在教室里吃早饭。(地点状语在动词前面)

I eat breakfast with my classmates every morning. (adverbial phrase of manner is after verb)

我每天上午和同学们一起吃早饭。(方式状语在动词前面)

2. English uses *clauses* (从句) to denote the attributive qualities to subjects or objects whereas Chinese uses *particle 的* (助词，的) to denote the same relationships.

The student who is sitting next to the teacher is a 4th grade student. (attributive clause of subject 主语定语从句)

那个坐在老师旁边的学生是一个四年级学生。(的定语短语)

I love to read books that tell stories about African-American children. (attributive clause of object 宾语定语从句)

我喜欢看讲非裔孩子故事的书。(的定语短语)

He will go outside to play when/after he cleans up his table. (attributive clause of adverb 状语定语从句)

他把桌子清干净以后就可以出去玩了。(状语前置)

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3. English denotes a *plural noun* (复数名词) by adding "s" to the noun whereas there is no distinction between singular and plural nouns themselves in Chinese. Instead, it uses a *number + measure words* (数词+ 量词) to indicate the number of the object.

She has a book.

She has two books. ("s" for plural)

她有一本书。

她有两本书。(两+本表明多少)

4. English and Chinese have reversed sentence order regarding *space and time* (相反的时空语序)

Space (空间/地点)

2100 Waverly St, Columbia, SC 29204, USA (from small to large location 从小到大的地点)

美国南卡罗利亚州哥伦比亚市微弗利路 2100 号 (从大到小的地点)

Time (时间)

Monday, February 14th, 2022 (from small to large time period 从小到大的时间段)

二零二二年二月十四日，星期一 (从大到小的时间段)

5. English and Chinese *existential sentence* (存在句) have different sentence structure. English usually uses *There is/There are structure* to state existence whereas Chinese uses *place word + proposition* (地点词+介词) to denote existence.

There is a child on the playground. (There is structure)

操场上有个孩子。(地点词+介词做主语)

There are two tables, ten chairs and three cabinets in the classroom. (There are structure)

教室里有两张桌子，十张椅子和两个柜子。(地点词+介词做主语)

6. Whenever "It" is used as the subject of a sentence in English, Chinese simply leaves out the subject.

It is raining!   下雨了！

It is twelve o'clock now!   现在十二点钟了。

7. Chinese always uses a *measure word* (量词) after a number whenever enumerating objects (nouns) whereas English often connects a number with a noun directly when counting.

two teachers	两位老师.	one bird	一只鸟
two fish	两条鱼.	four desks	四张桌
four chairs	两把椅子.	one pencil	一枝铅笔

- Syntax & Grammar that are **similar** in the two languages

1. English and Chinese use the same *measure words* (量词) when counting.

one group of children   一群孩子

two pieces of paper   两张纸

three bottles of water   三瓶水

four boxes of chocolate   四盒巧克力

five bouquets of flowers   五束花

eight slices of pizza   八片披萨

a period of time   一段时间

two teams of football players   两队球员

2. English and Chinese have the same sentence structure when it comes to *simple affirmative and negative sentences* (简单肯定和否定句, 主+谓+宾)

I am a teacher.   我是老师。

He likes to eat pizza.   他喜欢吃比萨饼。

She has read ten books.   她读了十本书。

She does not speak English.   她不说英文。

They did not go to that party.   他们没去那个派对。

Pragmatics (language use)

- Cultural norms or contexts that are reflected in language use

- Use of overlapping cultural norms in a bilingual context

1. Respect for old people in Chinese culture is reflected in the use of 您 instead of 你

2. Some traditional Chinese writings are done vertically from top to bottom, and some should be read from right to left.

3. To indicate a family or close relationship, the possessive particle 的 can be omitted.

我爸爸，我妈妈，我家，我女朋友 instead of 我的爸爸，我的妈妈，我的家，我的女朋友

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1. Chinese uses *radicals* 部首 to denote gender difference and plural while English uses different words to denote these differences.

Gender 性别

他   he

她   she

Singular and Plural 单复数

我   I

我们   we

Reference

Beeman, K., & Urow, C. (2013). *Teaching for biliteracy: Strengthening bridges between languages.* Philadelphia, PA: Caslon Publishing.

11:24 AM-11:54 PM - B-Lunch
### 11:58-12:56 PM - 4th Period - Science

I arrive to Mr. Lobo's science class. Last week, we worked on how elements can be transformed and the importance of oxygen in our lives. We are seated in teams of four at the lab tables. Mr. Lobo rotates our teams each unit. He has the instructions on the board, and we have our notes at our table. We are going to do an experiment to learn about chemical decomposition reactions. On the board it says that a chemical decomposition reaction is when one reactant breaks down into two or more products. Mr. Lobo also points to our class cognate chart and explains how the word *decomposition* is a cognate.

Each person in our team has a different job—Director, Materials Manager, Technician, and Facilitator. We rotate jobs for every experiment. Since I am the material manager and my friend is the facilitator, we get to pick up the materials:

✳ Sodium Hypochlorite (Na ClO) and hydrogen peroxide (H2O2)

✳ A beaker, matches, and a wooden stick

✳ Plastic gloves, goggles, a dish, and paper towels

David is the technician, so he pours 50 ml of bleach into the beaker and then tells Stephanie to add 25 ml of hydrogen peroxide. There are bubbles forming and the beaker feels a little warm! David carefully lights the wooden stick with matches and then blows them both out. When I put the stick next to the beaker it makes a funny noise and the solution begins to glow. Smoke even starts coming from the beaker! Mr. Lobo reminds us that this is proof that extra oxygen has been released from the oxygenated water. He writes the chemical equation on the whiteboard:

$2NaCl$ (bleach) + $2H2O2$ (hydrogen peroxide) → $NaCl$ (salt) + $O2$(oxygen) + $2H2O$ (water)
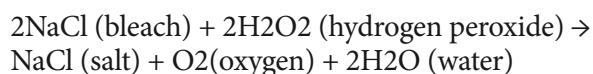
My team and I clean up our tables and put the materials back in their place. For my exit ticket I need to answer these questions:

✳ Doing this project allowed me to learn _____.

✳ I would like to improve this experiment by doing the following:_____.

✳ What I liked most about this experiment was_____.

As I leave the class, I place my ticket in the tray for our 4th period classwork.

1:00-1:58 PM - 5th Period - PE

This semester I had to take PE as my elective—I need it in order to get promoted to high school. I had Mariachi last semester, which I loved! Since I can't take Mariachi as an elective, I stay after school on Tuesdays and Thursdays for the Mariachi afterschool program.

We start our PE class stretching our legs. Then, Coach gives us the directions for our next activity. We are going to be running relay races! Coach set up running lanes with orange cones and showed us where the exchange zone is so that both runners are moving when they pass off the baton. Coach divides us into teams of four and has us decide our numbers. We must run in the right order. That took a little negotiating—we had to remember who the fastest runner was on our team. My team got off to a great start, but in the end we lost. It didn't matter though because we had a lot of fun!

Once we finish, we open our journal and write for two minutes answering the question: "how could you train to improve your team's chances at winning?" We need to write at least a paragraph. I write about strengthening my leg muscles and practicing the best way to hold the baton. Coach then has us make two circles, one that faces inside and one that faces outside. He tells us to share our reflection with the person we are facing. I get to talk to my best friend Briana. Coach blows her whistle and has the outside circle move over one person. Now I get to talk to Aldo. It takes us a while to start talking, but we manage to share ideas. Before the bell rings, we go to our lockers to change. On my way out I turn in my journal and head to 6th period.

2:02-3:00 PM - 6th Period - Artes del Lenguaje de español

Mi última clase del día es con la Sra. Aranda. Empezamos viendo un video sobre oficios y profesiones y qué nos gustaría ser cuando seamos adultos. La maestra Aranda detiene el video en algunos segmentos y nos hace preguntas. Nos pide que reflexionemos y contestemos las preguntas en nuestro cuaderno. Al mismo tiempo ella anota las palabras nuevas en el pizarrón. Las preguntas que nos hace son:

¿Cuáles son las características principales que diferencian una profesión de un oficio?

¿En qué escuela se estudia para ser técnico o profesional?

¿Son capacitación y entrenamiento lo mismo?

Para cada pregunta, la maestra nos pide que usemos enunciados completos—es decir que incluyamos la pregunta en la respuesta.

La maestra nos reparte dos palabras de vocabulario nuevo. Por cada palabra tenemos que escribir un enunciado completo, dibujar el oficio y escribir un párrafo sobre si esa profesión nos gusta o no nos gusta y en qué escuela se estudia para eso. La maestra me dio las palabras "Abogado" y "Farmacólogo". Abogada sí me gustaría ser, pero no creo ser farmacóloga. La Sra. Aranda nos dice que vamos a compartir nuestras respuestas una por una con un compañero. Cuando escuchemos la música vamos a caminar alrededor del salón y cuando la música se detenga, necesitamos encontrar un compañero y compartir nuestro trabajo. Ella pone una canción de Christian Nodal, ¡Mi cantante mexicano favorito! La música nos hace bailar y cantar a todos. Repetimos este proceso tres veces más. Ahora en equipo, tenemos que escoger dos oficios y dos profesiones que nos gustaría seguir y escribir dos párrafos explicando cuáles son los requisitos en cada una de esas profesiones y oficios. La maestra nos pide que usemos estos enunciados auxiliares para empezar cada párrafo:

"Cuando sea grande me gustaría tener la profesión/oficio de _____ _ , porque _____."

"Para esa profesión/oficio tengo que estudiar en _____, por _____ años."

En equipo hicimos el borrador y ahora tenemos que hacer nuestro trabajo final individualmente.

Antes de terminar la clase, la maestra nos da una rúbrica para el proyecto final. Para la siguiente clase tenemos que traer una lista de profesiones y oficios de personas que conozcamos. El proyecto final será una investigación más a fondo de las profesiónes/oficios más populares en nuestra comunidad. ¡Suena muy interesante!

3:10-4:00 PM - After School

Today I don't have the after-school Mariachi program, but I am going to be part of the tryouts for soccer. I hope I make the team!

Gracias al Sr. Sánchez, Sra. Córdova, Sra. Aranda, Sr. Lobo y la Srita. Berenice Terrazas por compartir sus conocimientos, lecciones y experiencias en el aula con nosotros.

Dual Language Education of New Mexico Has a New Executive Director!

After 25 years, DLeNM's founding Executive Director, David Rogers, has chosen to move into a support position within the organization to make room for the next generation of transformative leadership. With that goal in mind, the Board of Directors is proud to announce that Michael A. Rodríguez will take over as DLeNM's Executive Director on July 1, 2022.

Michael began his collaboration with DLeNM in 2003 as the Assistant Principal of Agua Fria Elementary School in Santa Fe, and again in 2009 as Director of Cien Aguas International School in Albuquerque. In the spring of 2016, he officially joined DLeNM's leadership as Director of Operations, a position he has held until now. As a 25-year educator and native New Mexican, Michael knows first-hand the importance of honoring students' cultures and languages and has developed his passion and expertise for dual language education through his experiences as a parent, teacher, administrator, and program development specialist. Michael is exceptionally well prepared to lead DLeNM in realizing its mission to develop, support, and advocate for high-quality dual language education in New Mexico and beyond.

Congratulations, Michael! The DLeNM Board of Directors is excited for the organization's future and looks forward to many productive and exciting years of collaboration with you as our next Executive Director.

¡Seguimos con la cosecha!

Next, during this teacher's English Language Arts time, we retold the classic story of *Goldilocks and the 3 Bears* using a Narrative Input Chart with story cards, speech bubbles, and vocabulary words. The Narrative Input Chart fed into a Story Map, which could be extended into an individual or team writing task, depending on student ability and teacher preference.
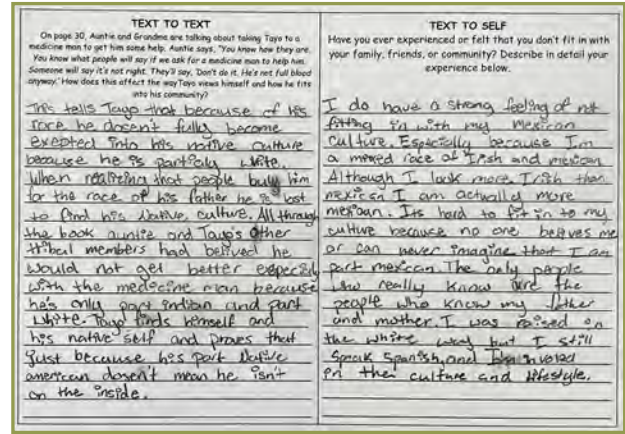

In a 5th grade class, I used a "Here There" Chant, which fed into an SPC and a student extension of the chant. While I was in that classroom, we completed only these two strategies. The student extension of the chant was ready to be completed the next day.
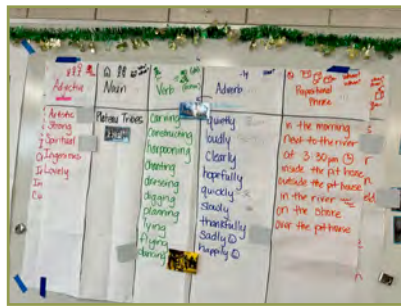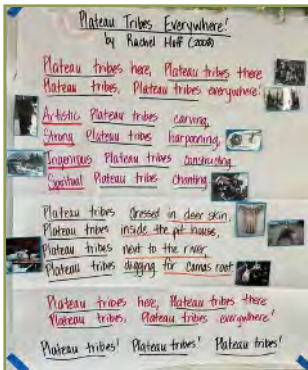
For high school juniors, my colleague María Chávez Ceja and I helped the English teacher make a novel about WWII soldiers from the Laguna Pueblo more comprehensible for students. We used a Narrative Input Chart to retell the novel, and then a Learning Log to connect the subject matter back to the students. The main character in the story experienced bi-cultural ambivalence, which provided the prompt for the text-to-self portion of the learning log. Powerful!

For that same class, while using a different novel about the Vietnam War, we used Observation Charts to access the students' prior knowledge about the war and give them a chance to talk with a classmate. Later, the students completed an Inquiry Chart. These two strategies would provide a perfect segue into Interactive Journals or a research project (either in teams or individually).
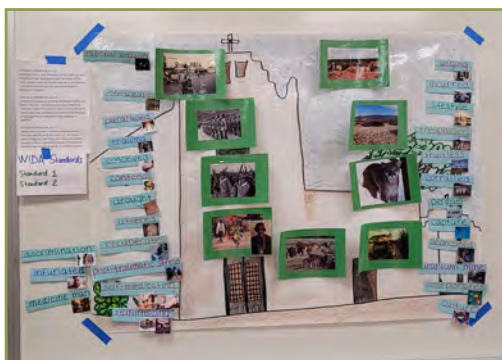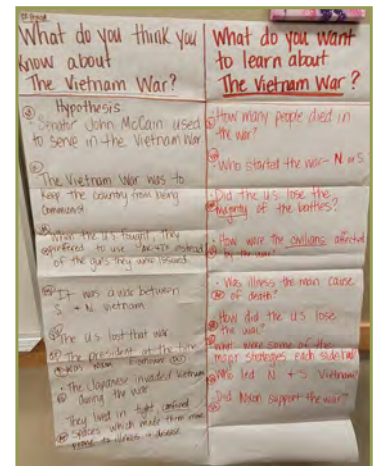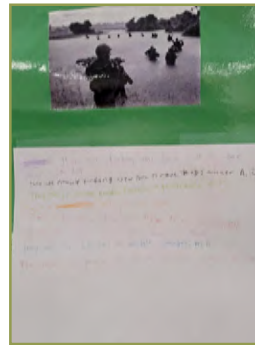
GLAD® doesn't have to be an all or nothing approach. You can take the strategies chunk by chunk and make them work for you. Don't allow yourself to be intimidated by the scope, sequence, and number of strategies that are listed in the Project GLAD® Learning Guide. That guide is meant to be a resource that fine-tunes your teaching practice, takes student learning to the next level, and provides scaffolds for students to develop both language and core content. Every time you employ a GLAD® strategy in your instruction you are making language and content more comprehensible. It's time to move to the next level and hook those reading and writing strategies in. You'll soon find that you are able to assess student progress and provide more targeted re-teaching and refinement.

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Schedule-at-a-Glance

Wednesday, November 2nd

6:30 a.m. – 2:30 p.m. School Visits*
8:30 a.m. – 3:00 p.m. Pre-Conference Institutes*
12:00 p.m. – 5:00 p.m. Early Check-In
1:00 p.m. – 5:00 p.m. Exhibits Open
5:30 p.m. – 7:00 p.m. Opening Session (Live Stream)
7:00 p.m. – 8:30 p.m. Opening Reception & Night at the Exhibits

Thursday, November 3rd

7:30 a.m. – 3:30 p.m. Check-In
7:00 a.m. – 5:00 p.m. Exhibits & Career Fair
9:10 a.m. – 2:50 p.m. Concurrent Sessions
12: 15 p.m. – 1:15 p.m. Networking Luncheon
3:15 p.m. – 4:30 p.m. Plenary Session (Live Stream)
7:30 p.m. – 10:30 p.m. Conference Dance/Fundraiser*

Friday, November 4th

7:30 a.m. – 11:30 a.m. Check-In
8:00 a.m. – 5:00 p.m. Exhibits & Career Fair
9:10 a.m. – 2:50 p.m. Concurrent Sessions
12: 15 p.m. – 1:15 p.m. Networking Luncheon
3:15 p.m. – 4:30 p.m. Plenary Session (Live Stream)
8:30 a.m. – 3:00 p.m. Student Leadership Institute & Family and Community Institute

Saturday, November 5th

7:45 a.m. – 9:00 a.m. Breakfast with an Expert
9:10 a.m. – 12:15 p.m. Concurrent Sessions
11:30 a.m. – 12:00 p.m. Closing & Pow Wow
*Indicates ticketed event.

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Fundraiser/Dance

Pow Wow

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what they wrote). This unit made the sociocultural competency goal of DLE real because students were able to connect with the main characters (many of them have relatives living in another country) and they really began to understand that we are all different, and that is okay!

4th Grade Unit *Activistas y agentes de cambio* Sr. Toby Rose

Learning Targets:

- Language Arts content - *I can determine the main idea of a text and how it is supported by key details. I can refer to details in a text when drawing inferences from the text.*

- Language focus - *I can use the language of inference to analyze text.*

- Sociocultural Competency and Social Studies content - *I can make connections between activists' life stories and my own personal experiences* (identity development). *I can explain how activists change the world* (critical consciousness).

Sr. Toby started the unit with Observation Charts and an Inquiry Chart (¿Qué sabes sobre el activismo? ¿Qué quieres saber sobre el activismo?). Next, he read a Teacher-Created Big Book aloud. The cover and table of contents are shown below.

He then presented a Pictorial Input Chart about Dolores Huerta with images and bulleted information in color-coded categories: *Identidad, Eventos importantes de su vida como activista*, and *Los cambios que provocó.*

The Pictorial Input Chart led Sr. Toby to facilitate small Expert Groups. Each Expert Group read and discussed a text about a different activist that included the same categories of information found in the Pictorial Input Chart. Each Expert Group text introduced the students to César Chávez, Alexandria Ocasio-Cortez, Sonia Sotomayor, and Rigoberta Menchú Tum. Each member of the expert team then returned to their home team and taught their teammates about the activist that they had become an expert on. An example of one category of one of the expert group texts used is shown on page 19.

Tabla de contenido

Nombre _____   Fecha _____

Rigoberta Menchú

Identidad

Rigoberta Menchú nació el 9 de enero de 1959 en Guatemala. Nació en una familia campesina maya que hablaba su idioma indígena, quiché. Tenía ocho hermanos y hermanas y todos trabajaban en las plantaciones cercanas de café y algodón. Cuando era una adolescente trabajó durante dos años en la capital guatemalteca como empleada doméstica. Durante su vida Guatemala tuvo una guerra civil que duró más de 30 años. Durante la guerra, muchos indígenas desaparecieron y fueron asesinados por el ejército. Debido a que su padre era un activista en su comunidad indígena, muchos miembros de su familia fueron asesinados. Esto le afectó mucho y empezó su activismo en luchar por los derechos de la gente indígena en Guatemala y en todo el mundo. Hoy, Rigoberta es una activista y defensora de la paz, la justicia social y los derechos humanos de los pueblos indígenas en Guatemala.

La activista más influyente

Nosotros pensamos que Dolores Huerta es la activista más influyente porque ella organizó una huelga para los trabajadores agrícolas

Ella trabajó con otros activistas para luchar por la negociación colectiva

Nos inspira porque ella ha defendido los derechos humanos durante toda su vida. Una lección que se puede aprender de Dolores Huerta es que no puedes darte por vencido porque los errores nos ayudan a Aprender y salir adelante

The class then summarized the information learned about each of the activists studied by using the Process Grid strategy.

The Process Grid allows students to access all the information learned in a unit of study. The categories at the top of the grid are the same as the categories of the Pictorial Input Chart and the Expert Group texts.

For the culminating task, each group of students developed a Google slide with information on the activist they thought was the most influential. In the example shown here, a student group chose to write about Dolores Huerta.

In his reflecttion on the implementation of this unit with the integrated GLAD® strategies, Sr. Tobías noticed that the information was more accessible for all students regardless of their language abilities. The activities were dynamic and interactive and enjoyable for the whole class! This unit made the 3rd goal of dual language education real because many students identified with activists based on their own identity and values, and thus were inspired to talk to family and community about advocating for their values!

The process the bilingual teachers at Briarcrest Elementary followed to develop GLAD® units that led the students to demonstrate sociocultural competency provided embedded professional learning for everyone involved! The teachers engaged in authentic, organic conversations that provided the foundation for these powerful units; something that would not have been possible if the school had been using published curricula. Honoring and investing in DL educators in this kind of work is critical for successful, sustainable dual language programming!

References

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Freire, P. (1968). *Pedagogy of the opressed.* New York: Seabury Press.

Howard, E. R., Lindholm-Leary, K. J., Rogers, D., Olague, N., Medina, J., Kennedy, B., Sugarman, J., & Christian, D. (2018). *Guiding principles for dual language education* (3rd ed.). Washington, DC: Center for Applied Linguistics.

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▣ Dual Language Education of New Mexico—2022 Hybrid Summer Institute: June 7-8, 2022.

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▣ UNM College of Education with NM public education dept—Spanish Summer Immersion Institute for Bilingual Teachers: June 1-24, 2022 in a virtual format.

For more information, please contact Dr. Leila Flores-Dueñas at lflores@unm.edu.

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For more information, contact Dr. Carlos LópezLeiva at callopez@unm.edu.

▣ Association for Two-Way & Dual Language Education (ATDLE) —Annual 2022 National 2-Way Bilingual Conference: June 27-29, 2022 at the Riverside Convention Center, Riverside, CA.

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▣ Dual Language Education of New Mexico—27ᵀᴴ Annual La Cosecha Dual Language Hybrid Conference: November 2-5, 2022 in Santa Fe, NM with in-person and virtual attendance options.

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