

VOCES: COMMUNITY, PARENTS, TEACHERS,  
AND STUDENTS

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Beetles and Butterflies: Language and  
Learning in a Dual Language Classroom

Sharon Adelman Reyes  
*School of Education*  
*Loyola University Chicago*

Welcome to the classroom of Jill Sontag and her 19 young bilingual collaborators. Join them as they simultaneously explore the world of insects and the world of language. These curious and energetic second graders are easily drawn into the realm of bugs. Encouraging them to speak in Spanish, however, is a bit more complicated. Jill uses her professional judgment to make choices about when and how to reinforce second language acquisition and literacy in Spanish in this two-way bilingual immersion classroom. Creativity and humor are cornerstones of her pedagogical style and are maximized throughout this inquiry-based curriculum. Content and literacy are authentically interwoven as the teacher skillfully promotes bilingualism.

[Please note that as the children in the story are in the process of developing their second language skills, grammatical and syntactic errors inherent to their speech occur. I have tried to reflect their speech as accurately as possible and therefore have not corrected their errors.]

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The phone rang at 7:30 a.m. It was Ms. Sontag calling from school.

“We have butterflies,” she announced, her voice rich with excitement. “We won’t have too much time to talk about them today because we need to rehearse for the Pan American assembly tomorrow, but the kids will see them when they enter the room.”

“I’ll be there,” I said. Then I dashed through an abbreviated morning routine. By 8:35 I was seated in the back of Room 307, waiting for the children to enter.

Two mixed-gender lines formed in the small classroom entrance hallway. From my vantage point, only the back of Ms. Sontag was visible as she told the children that another change had occurred and cautioned them not to scream out their enthusiasm as they had on Wednesday, which had been a particularly loud day. She did so in Spanish, thus setting the tone for the linguistic as well as the content learning that she hoped would occur.

Antwan peeked through the hallway and surveyed the room.

“Look over there, look over there!” His announcement was loud, but he didn’t scream. In his excitement he paid no heed to his teacher’s subtle request to communicate in his second language.

Alicia spotted them next.

“Butterflies!” Spanish-dominant Alicia continued the student talk in English.

Ms. Sontag stepped aside and with quiet enthusiasm children flocked to the net cage at the side of the room. Five now-empty brown chrysalises, cracked and dry like mealworm skins, hung from the top of the cage. Four speckled butterflies clung motionless to the net, and one rested on red paper petals surrounding a vial containing a liquid set in a plastic cup. Their wings were a mix of black flecked with white and orange flecked with black, although only one displayed its colors with open wings.

My mini cassette recorder rested on a ledge above the butterfly cage, clearly visible, yet unnoticed by the children. For 10 min it recorded their excited gasps and initial observations. Despite Ms. Sontag’s linguistic cue, English dominated the content-related student talk.

“Oh, butterflies!”

“Come here. Two ... three!”

“Oooooooooohhhhh!”

“Watch, watch. They think that paper is a flower!”

“ANDY, ANDY!”

“Sssshhhh, sssshhhh.”

“*Mueva, Jorge.*”

“Lookit this one Jonathon, lookit, lookit!”

“Lookit the color.”

“Teacher, what about these colors?”

“Oh! Four!”

“One more, one more!”

“Lookit, lookit, he’s trying to fly! He’s trying to fly ... the one.”

Glenna remained near the front hallway, deep in conversation with Amber. After a few minutes she, too, joined the children clustered in front of the butterflies. They were huddled too tightly for her to get through. Josh, her former partner from the *Resultados* group, gently parted the crowd. Ronald put his right arm over her shoulder and drew her in closer to the net. Ernest, imitating his teacher, walked over and teased the group, telling them to go to their tables; “*¡Va a tu mesas!*” His grammar may have been flawed, but his intent was clear.

Glenna examined the butterflies and then walked toward her table. Damion, seated in his chair, tried to catch her attention.

“I have a flipper toy,” he said, looking up at her with adoration.

“Sooooo?” Glenna replied coolly and walked away, deliberately avoiding a conversation. Then she walked over to me, bent over, and whispered in my ear, “I think he likes me.”

Ms. Sontag signaled the end of the observation period by turning off the lights. The excited flutter of children and butterflies waned as the boys and girls returned to their tables.

“*Mesa seis es la más callada.*” As with Ernest, understanding Spanish was a prerequisite to understanding her joke. She declared that Table 6 was the most quiet.

The class giggled. Amber was not yet seated, and Lisette and Azucena had not yet arrived at school. Nobody was left to sit at Table 6.

The children were able to unwind in the brief but focused conversation that followed. Ms. Sontag initiated a discussion, in Spanish, about the red spots of waste they had seen on the floor of the net cage. She cautioned them that the butterflies were easily frightened and that the children needed to talk softly when they were nearby. Her facilitation ensured that conversation persisted in Spanish. The separation of languages for instructional purposes in a two-way bilingual immersion classroom not only promotes competence in two languages but also signals to students the appropriate language for classroom talk. Thus, class content (insect observations) signals discourse in Spanish, and the teacher’s facilitation sustains it.

Insect observation ended with a most welcome announcement: They would spend the rest of the morning practicing for the Pan American assembly. Glenna put on her white Caribbean-style ruffled blouse and matching skirt. A cassette tape beat African drums and she was transformed, full skirt whirling like a butterfly’s wings, by the contagious rhythm of the Puerto Rican *Bomba*.

\* \* \*

Wrapped in a green-and-white towel, curly hair glistening with droplets of water, Glenna bounced around the apartment refreshed and bubbling with energy. In her fingers she held a precious gem: a fallen tooth. She smiled repeatedly, broadcasting the empty space just to the right of her two front teeth, anticipating my nighttime visit as the tooth fairy.

“¡Mami, yo toqué un escarabajo!” (‘Mommy, I touched a beetle!’)

“¿De veras?” (‘Really?’) I responded in Spanish, hoping to provide reinforcement of the classroom language curriculum.

“¡Y yo toqué una mariposa, un poquitito parte de la mariposa!” (‘And I touched a butterfly, a tiny part of the butterfly!’)

“¿De veras?” (‘Really?’)

“Just kidding!”

She danced around the dining room table singing the well-known song about the cockroach that could not walk due to a missing leg.

La cucaracha, la cucaracha  
Ya no puede caminar  
Porque le falta, porque le falta  
*La patita de atrás.*

She paused; then, sustaining communication in Spanish even as her excitement mounted, she announced, “¡Mami, yo toqué un escarabajo muerto! ¡Yo toqué un escarabajo viejo!” (‘Mommy, I touched a dead beetle! I touched an old beetle!’)

The thought of waking to a surprise from the tooth fairy motivated her to go to bed. She arose the next morning and entered my bedroom, a dollar bill in her hand, singing an original verse about a cockroach that could not walk because of a missing tooth.

La cucaracha, la cucaracha  
Ya no puede caminar  
Porque le falta, porque le falta  
*El diente de atrás.*

\* \* \*

“Maestra, ¡ya sé como hacerlo!”

Before Ms. Sontag could finish her demonstration to the class, Glenna pulled back a sheet of tissue paper and out of her fan began to form the petals of a flower.

“*Maestra, ¿puedo hacer esto?*” Glenna demonstrated her understanding of the appropriate language in which to address her teacher.

She pulled the tissue petal back further while asking if she could continue. Ms. Sontag smiled.

“*Así,*” she sighed with satisfaction as she pulled another petal into position. When every tissue was in its place, she called her teacher over to look. “*¡Mira maestra!*”

The project of the afternoon was to create an artistic representation of each phase of development in the life cycle of a butterfly: *huevo, oruga (o larva), capullo,* and *mariposa*. Each of these creations would then be attached to the flower, the egg nestled in the petals, the chrysalis hanging from them.

The eggs, caterpillars, chrysalises, and butterflies were all successfully created out of a combination of clay, tissue and construction papers, paint, pipe cleaners, and egg cartons. Of particular fascination to the children was the tempera paint used to color the egg carton caterpillars.

Glenna used her paintbrush to cover her egg carton with a green base. Across the room, however, Amber had a different idea; she announced defiantly in English that she preferred to use her fingers. Her idea did not receive a positive reception from Ms. Sontag, but Glenna responded favorably, abandoning her paint brush to rub green paint into cardboard crevices with first her fingers and then her entire palm. The underside of her hand soon turned the deep green color of the paint.

As if a contagious disease, the green hand syndrome spread. At a nearby table both sides of Azucena’s hands were coated in dark green from her wrist to the tips of her fingers. Ernest, Damion, and Diana had also copied Amber, and their hands were in various stages of color transformation.

Not everything, however, was a shade of green.

“*¡Maestra, mira qué pasó!*”

Glenna pointed to an expanding pool of yellow as paint spread across her desk-top.

Ms. Sontag was not pleased with the outbreak of green. Soon Azucena, Ernest, Damion, and Diana were sent to the storage room to remove green while Glenna scrubbed off yellow.

“Teacher, can I wash my hands?”

Amber, who had started it all, apparently had had enough.

“*¿Cómo?*” Ms. Sontag decided not to understand English.

Amber may not have been compelled to use a paintbrush, but she had strong motivation use her second language.

“*¿Puedo lavar mis manos?*”

This time Amber ended up in the bathroom trying to figure out how she had managed to get green spots on the back of her shirt and, perhaps, considering the advantages of using a paintbrush.

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Glenna and Marisol stared down at the mass of black beetles tunneling into and out of the thick oatmeal carpet that lined the plastic container. Rotting pieces of apple were scattered throughout the rectangular bin, and the hungry insects swarmed over them like 7-year locusts on a feeding binge. The two girls, faces frozen in disgust, remained motionless and silent, contemplating their mission. Feed the beetles. Feed the beetles that long for escape.

The fat crawling bugs needed a fresh supply of fruit. First, however, the remainders of the past week's allotment had to be removed. Neither child volunteered to begin.

Marisol picked up a napkin lying on the table and handed it to Glenna.

"Use this."

Glenna wrinkled her nose.

"It might crawl on the napkin."

Marisol was silent.

Covering her hand with the white paper, Glenna dipped it down to grab a chunk of rotted apple. The soft, brown fruit slid out of her napkin-covered hand.

"It's too slippery."

Marisol remained silent.

Glenna tried again, this time with success, scooping the apple piece up quickly and then dropping it on the table as if it were poison. She repeated the procedure with several other pieces.

"Now you get one. I've done all of them."

She handed the napkin to Marisol, who distastefully obliged.

Only one piece of apple remained, and it seemed that all of the displaced beetles had flocked to it. The children stood frozen above the beetle habitat.

"It's got *escarabajos* on it," Marisol muttered.

The two continued to stare.

"Maybe if we like put a new apple in, they will like go to the new one and we can like get the old one."

Glenna agreed to the plan and began to cut a chunk off of the unused portion of the apple that had been left on the table during the week. The warm, brown pulp resisted the knife. The girls went off to speak to Ms. Sontag, Glenna as their spokesperson.

"*Maestra*, it's all ..." she paused. Realizing she was speaking to her teacher about bugs she switched languages in midstream. "*Toda la manzana es vieja y soft. ¿Tienes otro?*"

Ms. Sontag sent them off to the cafeteria and they returned with a fresh apple. Glenna sliced off a crisp chunk.

"You can't cut it that big," Marisol protested while providing Glenna with the linguistic cue that in Ms. Sontag's absence they could resume conversation in English.

“Yes I can. Look at these!” She pointed to the rotted chunks lying on the table. “They ate all of them.”

The girls rotated slicing and dropped the newly cut food into the beetle habitat. As the insects swarmed to attack the fresh fruit, Marisol quickly plucked out the final piece of rotted apple. The two had accomplished their teacher-requested mission. The beetles could now be safely left for the weekend.

On Saturday morning I asked Glenna how she had felt about feeding the beetles. She told me that she had been afraid. Then she asked, “Mommy, what do beetles turn into?”

“We’ll find out,” I answered.

\* \* \*

Andy, Sammy, and José Luis ran frantically to Ms. Sontag.

“*Maestra*, we think a *mariposa* is dying! It’s on the floor on its side and it’s flapping its wings and its *proboside* is hanging down!” Once again, Spanish was lost in the drama of the moment.

Their teacher calmly advised, in Spanish, that the butterfly be left in peace while they finished their work. They would check on it later. “*Ahora tenemos que dejarlo en paz. Seguimos con el trabajo y lo chequearemos más tarde.*”

Only 3 days remained in the school year, and there was much work to be done. Throughout the room children were involved in various end-of-the-year activities: putting together portfolios, cleaning out over-stuffed desks and backpacks, and writing letters to their as yet unknown third-grade teachers. The three children rejoined the classroom flurry.

Forty minutes later Andy, accompanied by José Luis, was back talking to Ms. Sontag.

“Look, it’s shaking.” Andy pointed toward the cage at the side of the room. “Is he sick? What’s wrong?”

Ms. Sontag, followed by Andy and José Luis, walked over to the cage and visually examined the butterfly.

“*Mira en la flor. ¿Qué ven ustedes?*” She asked what they saw on the flower.

“I dunno.”

Ms. Sontag persisted in her attempts to meet both the content and the linguistic goals she had set for her students. “*Las cositas negras.*”

“Oh yeah!”

“*¿Qué son?*”

José Luis looked up at Ms. Sontag wide eyed. Andy looked as if he couldn’t comprehend why his teacher would ask a question with such an obvious answer.

“*¡Huevos!*” (‘Eggs!’) they both declared, each with his own distinct intonation, using the Spanish vocabulary word that Ms. Sontag had reinforced in prior lessons.

With exuberance they called over Leticia, Antwan, and Joe. Ms. Sontag calmly beckoned to the others. In an instant children were clustered around the butterfly cage, some standing on the floor in front of it, others standing on the radiators to the side of the cage and gazing down, still others standing on chairs behind the children in the front row. All eyes were focused on one thing: a butterfly with its abdomen angled downward on the red paper flower in the process of laying an egg.

Cautioned to be quiet by their teacher, the children reacted in excited whispers. Although the dominant linguistic mode of expression was English, more Spanish had made its way into informal conversation than in such prior occurrences.

“*¡Están poniendo huevos!*” (“They are laying eggs!”)

“Come here, come here!”

“*¿Maestra, qué hacen?*” (“Teacher, what are they doing?”)

“Where are the *huevos*?” (“Where are the eggs?”)

“Look, look, look!”

“Uuuuhhhhh!”

“Aaaaaahhhhh!”

“Where are the eggs?”

“Sssssshhhhhhh!”

“Oh look, I see one!”

“Come here, come here!”

“*¡No toques!*” (“Don’t you touch!”)

“I don’t see them.”

“On the flower!”

“Under the net!”

“*Maestra, maestra*, the eggs are under the net! They fell down!” (“Teacher, teacher ...”)

The butterfly that had been reported earlier as dying had laid its eggs on the net covering resting just above the plastic cage floor. Its eggs had fallen through the small openings and lay trapped between the soft net and the hard plastic. A child-sized hand reached inside to rescue them.

“*No podemos tocarlos.*” Ms. Sontag cautioned the children not to touch them.

José Luis was wide eyed once again. “So you’re telling me that we’re gonna have *orugas* crawling around under the net?”

Ms. Sontag had no answer, but sent Leticia and Alicia to the *saloncito*, the small room adjoining the classroom, to summon Glenna, Marisol, and Sammy, who were at the computer working on “The Daily Bug Garden.”

“The butterflies are laying eggs! The butterflies are laying eggs!”

The three latecomers charged out of the side room and maneuvered their way into the cluster of children standing in front of the butterfly cage, entranced by the round brown specks, smaller than the size of a pinhead, and breathlessly hoping for more. But Glenna and her companions were too late; no new eggs emerged.



Children slowly trickled back to their seats. It was time to visit the sixth-grade inventors' fair.

"Okay niños, ya es hora de pasar a la presentación." ('Okay, children, it is time to go to the presentation.')

In a few minutes the children were walking down the hallway, and Room 307 was empty. Almost. In a darkened corner beetles scurried over spoiling chunks of apple. Milkweed bugs sucked nourishment out of wet paper towels as they hung from the wall in plastic bags punched with air holes. Butterflies fluttered their wings and minute brown eggs rested between netting and plastic or on paper petals, hiding within them unborn caterpillars.

*Huevo, oruga, capullo, mariposa, huevo.* Egg, caterpillar, chrysalis, butterfly, egg. Change is continual. Life goes on.

\* \* \*

The day after the butterflies laid their eggs began with another early morning phone call. At 7:30 a.m. I could be sure it was Ms. Sontag.

"We have a caterpillar! Alicita was helping me in the room this morning and she discovered it."

Ms. Sontag proposed that she tell Alicita to keep it a secret until I arrived. Like a hungry beetle attacking an apple chunk I finished off two pancakes and I was out the door. When I arrived in Room 307 I found the end of the year frenzy continuing as scheduled.

"Sharon, tomorrow is my last day of school."

Andy was leaving with his family over the weekend. He would miss Monday, the final full day of school, to begin an out-of-town vacation.

"I'll send you a postcard," he promised.

A number of children approached me with yearbooks, but there was no time to sign them. Now that I had arrived, Ms. Sontag and Spanish-dominant Alicita were free to reveal their early morning secret.

"*Yo, esta mañana, miré a las mariposas y yo no vi nada. Entonces yo bajé para hacer copias y cuando subí Alicita estaba en el salón. ¿Qué dijiste, Alicita?*" ('This morning I looked at the butterflies, and I didn't see anything. Then I went downstairs to make copies and when I came back up Alicita was in the classroom. What did you say, Alicita?')

The normally expressive child became suddenly shy as her teacher encouraged her to share her early morning discovery with her classmates. Pride in her achievement, however, compelled her to speak about the caterpillar she had seen early that morning on a flower. Ms. Sontag used this opportunity to model sustained conversation in Spanish to the class.

"*Vi una oruga.*" ('I saw a caterpillar.')

“¿Una qué?” (‘A what?’)

“Oruguita.” (‘A little caterpillar.’)

“¿Dónde?” (‘Where?’)

“En la flor.” (‘On the flower.’)

“¿Pero tuvimos oruguitas ayer?” (‘But did we have little caterpillars yesterday?’)

“No.” (‘No.’)

“No. ¿De dónde vino? ¿Glenna?” (‘No. Where did they come from? Glenna?’)

“Porque ayer una mariposa puso huevos y ahora tenemos una oruguita.” (‘Because yesterday a butterfly laid eggs and now we have a little caterpillar.’)

Ms. Sontag conversed with the class. “La oruguita es, ¿qué cosa? ¿Es como qué? ¿Es un adulto? ¿Qué es? ... Una larva. Es una larva. ¿O? ... O un bebé. Alicita va a buscar la oruga. Voy a llamarlos por parejas para ver si Alicita puede encontrar la oruga. Niños, hablan español, por favor.”

After reviewing with her students that the caterpillar was a larva, she instructed that they would be called, in partners, to the butterfly cage to see if Alicia could find the caterpillar. She reminded them to speak in Spanish.

Spanish-dominant Alicita stood expectantly by the butterfly cage. Glenna and Marisol were the first pair sent to view the tiny caterpillar, which resembled a short black fuzzy thread.

“Aaaaaaaahhhhhhhh!”

Glenna’s mouth hung open as she gazed downward in silence at the black spot on the red paper petal. Finally words came to her.

“Now it looks like a *huevo*.”

“*En español*,” (‘In Spanish.’) Alicita gently whispered her directive.

“*Un huevo chiquito*.” (‘A little egg.’) Marisol pinched her thumb and her third finger together to illustrate.

“*No, así*.” (‘No, like this.’) Bringing her fingers still closer, Glenna made the imaginary egg even smaller.

“*Es como ... así*.” (‘It is ... like this.’) Marisol made her egg tinier still.

Glenna would not be outdone. “*No, es como esta puntito*.” (‘No, it is like this little dot.’)

Alicita nodded her agreement. “*Está bien chiquitito*.” (‘It is really little.’)

Two at a time, Ms. Sontag sent the children to be hosted by Alicia as they observed the *oruguita*. Ernest fantasized about what could happen next.

“What if that egg breaks open and a huge caterpillar comes out? What if a butterfly comes out of the egg? So where is he? Where is he? How many eggs are there?”

Alicita patiently responded to each of her classmates.

“¿*La ves? La cosa negra. Salió de ese huevo*. Do you see that black thing by the leaf? See it move. *Y salió de ese huevo*. Okay, Ms. Sontag, *ya terminé con la mesa seis*.”

She told her teacher that Table 6 had finished and then continued her facilitation with the next group. “*Salió de ese huevo aquí. Mira.*” (‘It left this egg over here.’)

“How do you know it’s an *oruguita*?”

“Because *salió de ese huevo y se mueve mucho.*” (‘Because it left this egg and it moves a lot.’)

After all of the children had had a turn to view the caterpillar, Glenna returned for a second look. To her dismay it was no longer visible.

“Maybe it fell down in the water,” she sadly speculated. In the absence of Alicia she slipped into English just as easily as the caterpillar had slipped out of sight.

While Glenna was searching for the caterpillar, Amber, Ernest, Andy, Joe, and Diana were watching the beetles. Amber observed a new insect activity.

“They’re mating!” She cried out excitedly, catching Ms. Sontag’s attention. “Teacher, are they mating?”

“How are we going to know? In a week or so what’s going to happen?”

“They’ll have babies,” the children answered in a chorus.

“What are the babies?”

Simultaneously the children answered “*gusanos*” or “*larva.*”

Amber was still looking down at the beetle habitat, fascinated.

“They’re mating!”

“What’s that mean?” Joe was perplexed.

Ernest was amazed. “You don’t know what mating is?”

Amber supplied the answer. “Having sex.”

“Go away! Give them privacy!” The beetle advocate was Diana.

Hearing tidbits of the tantalizing conversation had sent Glenna rushing over. Watching beetles having sex had more appeal than searching for a lost caterpillar.

“C’mon Glennie, leave them alone.” Diana tried to shoo Glenna away, but Andy had the final word.

“They’re fighting over a woman.”

Insect watching turned into room clean-up. Eggs might be hatching, but the school year was still drawing to a conclusion. Much work remained to be done.

Glenna sorted books with Marisol in the library corner. One at a time they placed those written in Spanish in a blue plastic bin and those written in English in a white one. Azucena lay on her side, her head resting on the sofa cushion, reading a book. The other girls did not seem to mind that she was not helping.

Antwan and Damion pushed magnets from high off the wall with yardsticks. Sammy scrubbed desktops with soap and water. Lisette cleaned out her cubby.

“There’s bugs under my cubby!”

It was a false alarm.

“What is this?”

She pulled out a set of worn out red earmuffs.

All over the room posters and papers were coming off walls, taken down by the same small fingers that only weeks ago had caressed mealworms.

Ms. Sontag stood in the middle of the fray counting lunch money and preparing meal tickets. There was no time to joke about chocolate-covered beetles today.

“Will other kids be coming here?”

Azucena approached her teacher tentatively, as if sensing a betrayal.

“Yes, there will be new children in the room.” Ms. Sontag spoke tenderly, as if new caterpillars were about to be born, or milkweed bug larvae were going to emerge from silent eggs. Her choice to respect Azucena’s use of English was perhaps born of the implicitly emotional nature of her student’s inquiry.

“Oh,” Azucena responded, without a smile.

“Magic carpet, magic carpet,” announced Amber joyfully, as she headed toward Table 1, carrying a large yellow paper over her head.

As I sat among falling posters and swirling voices a wave of melancholy washed through me. I would miss them. All of them. Amber, who should have been named Green. Ernest, waiting for a butterfly to pop out of a tiny egg. Marisol, who had had a mealworm named in her honor. Sammy, whose mealworm had turned into a lightening bug. Damion and his flipper toy. Alicia, who had kept the secret of the newborn caterpillar safe for my researcher’s pen. And Ms. Sontag, their colleague, partner, mentor, and friend, who had patiently and wondrously guided them through the life cycle of a butterfly.

A poster fell on my head.

“Sorry!”

It was Antwan. Seeing that I was not injured he picked it off of the floor and bounced off to add it to the pile on top of Table 1.