



*President's Message*, (from p.1)

*How many of the problems in our textbooks have meaning to students?*

How many of the problems in our textbooks have meaning to students? But put a problem in a context with meaning and the students are engaged immediately. In a second grade classroom, a teacher was working with her students on unit fractions. She brought in candy bars and told the students that she had bought too many and wanted to share them with the students. However, she didn't have enough for everyone to have their own. Besides, there were a number of people in the school that the students needed to thank for helping them. So each student was asked to share one candy bar with a friend and a person in the school who had helped them (the teacher identified the people and put it on a note on each desk). It seemed like a simple problem for second graders. An interesting idea surfaced. Most students split the candy bar into thirds. But one pair split it into fourths. Each person got a fourth. Then they split the remaining fourth into thirds and each person got one of those pieces. By making the problem real, the children found alternative ways to solve a problem and through discussion had a chance to grapple with the idea that solution lay in dividing the candy bar into three equal pieces.

In addition, it is important in mathematics to find connections to other disciplines. Studying about geometry has connections to the art curriculum. Math and science are often intertwined especially within measurement. For instance, students in science might be challenged to build a vehicle that travels the greatest distance. Students would be involved in measuring distances and making adjustments to their vehicles. In short, finding ways to connect the mathematics students are learning to their lives and across disciplines increases the opportunities for students to make sense of mathematics and apply it to the real world.

As I complete my second term as your President, it has been a great honor to serve LACTMA. I strongly encourage other people to get involved and take on responsibilities related to our Recognition Dinner, Conference and Newsletter. You do not have to be a member of the Board to get involved. Next year, I will serve as the Past President on the Board. Since no one has opted to run for President or Vice President again, the new Board will need to determine who will serve in these positions. Thank you to the members of the Board with whom I had the privilege to work.

Farryl Weitzman  
LACTMA President 

## **A Mathematical Dilemma: Students Can Learn More and Learn Faster**

by Joan Woodford Abu Bakir

Some of our teachers are in a dilemma because they know that many of their students do not understand the math and yet they have to teach the standards and it is difficult for them to justify “not teaching what they should teach” and yet they do it. Many do not teach what their students need to learn. They teach the standards without filling in the gaps because that is what many of them believe they should do.

I was talking with a group of teachers at a grade level meeting and I shared with them that the most experienced math teachers I have known have all said the same thing, “I just close my door and teach my students what they need to know”. These teachers know how to diagnose the gaps and fill in the missing knowledge in their student’s repertoire—so to speak. What happens is that in these classrooms with expert teachers, test scores rise. Not only do these teachers know how to captivate their students but also they know how to teach what the students need to know by making connections to their students’ lives and having clear expectations for student performance. These teachers to whom I refer are serious teachers, fun teachers, loving teachers who love their students and they love math. They make math exciting for their students. Do you think that these teachers do not know their students’ full names? Do you think that they never ask their students what they think about what they are accomplishing or thinking? Do you think that they know what is going on in their students’ lives outside of the classroom?

We all know that math scores begin to dip in third grade, rise somewhat in fourth, and the trend is that they continue down the slope through twelfth grade for too many of our clients. Why? Has anyone thought about upgrading the curriculum in grades K – 2? Has anyone thought about developing more awareness about number sense? Kindergarten students can (and should) learn to count to 100 everyday; they can learn to count by 2s, 5s and 10s and understand the meaning of numbers.

A classic example of misunderstanding that should not be happening is considered in this first grade problem that is written something like this:

[See *Dilemma*, p. 3]

*Dilemma*, (from p.2)

“There were 10 bees, 5 flew away and how many are left?”

A student who has not been taught to read and to think might just look at the numbers and answer “15” by adding them up. Students must be taught to read directions, to read the problem and to THINK about what the problem is asking them to do. The student should be able to articulate the above; I mean that the student should be able to speak in sentences the following way. “The problem is asking me to think about how many bees are left. Left means that there will be fewer bees than the original number that was given because if some went away there cannot be more than I started with.” You think this is lofty? It is not. We just have to take the time to let our students think and discuss. After awhile it becomes an habitual process and it does not take so long to elicit a response. However, if we are always on a soapbox, little time or attention will be given to accountable talk.

Another example is a problem from the sixth grade.

Carol exercises for 95 minutes every day. One day she ran for  $\frac{1}{3}$  of her exercise time. Which of the expressions below would help Carol determine the number of minutes she ran?

- A. 3 divided by 95
- B.  $95/3$
- C.  $95 + \frac{1}{3}$
- D.  $3 \times 95$

Many students, who have no conceptual knowledge of fractions, will choose D or C.

We have to teach number sense. We have to teach students to think, to have the “sense” to reason and contemplate what they are being asked to solve.

The idea of a fraction of something or a part of a whole should have been developed in every grade beginning in kindergarten!

How do we teach for this level of mastery? Apply TAPPLE\*

<p style="text-align: center;"><b>TAPPLE (DataWorks)</b></p> <p><u>Teach First</u> <b>Before you ask the question so students are equipped to respond.</b></p> <p><u>Ask a Question</u> <b>Specific to what you just taught.</b></p> <p><u>Pause</u> <b>Wait 3-5 or 8-10 seconds so all students mentally prepare an answer</b></p> <p><u>Pick a Non-Volunteer</u> <b>Select students randomly to verify that <i>everyone</i> is learning.</b></p> <p><u>Listen to the Response</u> <b>So you can make real-time instructional decisions.</b></p> <p><u>Effective Feedback</u> <b>Echo, if correct. Elaborate, if tentative. Explain, if incorrect.</b></p>
---

We have to check for understanding. We have to let students TALK about math. We have to keep students alert by setting up an atmosphere where anyone might be called on at any time and anybody will be called on to explain what the previous person has said. (Forget about students raising their hands. You and I know that the same 2 or 3, or 5 or 6 student’s hands go up continuously throughout the day and sometimes we call on those and let the rest of the students “slide”. (I apologize to those of you who already know and use this method of teaching; I hope that you will give this article to someone that you know it

[See *Dilemma*, p. 5]

*Math Buddies*, (from p.1)



The tasks on their *Math Buddies* checklists included telling time, calendar skills, counting to 30, sorting objects by type (and putting them in order by size), gluing 20 macaroni pieces on a card, tangrams, identifying geometric shapes, comparing heavier and lighter objects, and more. These skills were pre-taught before the project began. The checklists also allowed us to collect data on student performance.

**Preparing for Math Buddies**

I worked closely with the teachers to plan the project. We pooled our ideas and constructed the twelve centers where the tasks would be presented. We trained the 4<sup>th</sup> Graders in orientation sessions, so that they understood not just the procedures and tasks involved in *Math Buddies*, but also knew what it meant to be a good tutor. We explained that they must ask their Kinder Buddies questions, and resist the impulse to be an answer-giver. Special Ed. students acted in several roles – they were helpers, Buddies, and monitors.

When the project actually got started, there really wasn't a whole lot for the teachers to do, other than minor facilitation tasks. Our 4<sup>th</sup> Graders were given the responsibility of doing the teaching! One of the things that made *Math Buddies* so powerful was that it changed the role of the older buddy from student to teacher.

In this era of assessment-driven, high stakes instruction, the importance of making connections in the *affective domain* is often overlooked. Math lessons that require students to communicate with one another are intrinsically more motivating, exciting, and meaningful. In *Math Buddies*, language, movement, and just plain FUN assume an important role in creating the connections that encourage learning. The “course” of instruction becomes more like a golf course or playing field for Mathematics!

**The Alex Balian Connection**

The late and great LAUSD Science guru, Alex Balian, once told us that the best lessons happen when you have students moving around as they accomplish tasks. His lessons encouraged visual, auditory and kinesthetic connections. In his classroom, you were always moving around, observing, and listening. Balian used Socratic questioning and a great sense of humor to add to the level of engagement.

*The best lessons  
happen when you  
have students  
moving around*

In Balian's lessons, the materials used were commonplace. A piece of paper became an airfoil, used to demonstrate aerodynamic principles. A yardstick, string, tape and a washer were used to assemble pendulums for a frequency experiment. You didn't sit at your desk to do these lessons. You got up out of your chair, and in the case of the pendulum experiment, your chair became a prop too – it was placed on your desk, and used as a mount for your pendulum!

I bring up these examples because they are illustrative of the type of multiple connections that *Math Buddies* encourages. In a sense, when a Kindergartener weighs two objects on a balance after making a guess as to which one is heavier, that student is actually performing a scientific investigation to confirm his or her hypothesis! The use of the Scientific Method is ultimately one of the best ways to gain a complete understanding of many of the “Big Ideas” in Math. Important connections are made between the hypothesis, experiment, data, and conclusion.

**Should We Change the Way Our Students Practice Math?**

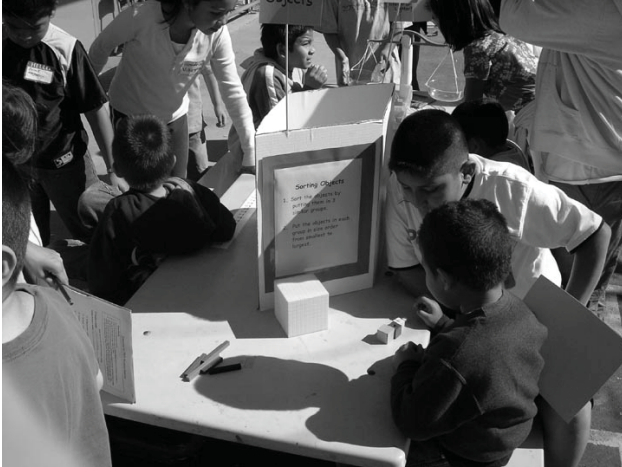
There are many reasons why so many students struggle with Math, but one of the things we as educators can do is to set up the conditions which make students **active** rather than **passive** learners. When we do that, we in essence change the way that students *practice* their Math skills. Students are given opportunities to make the multiple connections that cement their learning. The rigor is embedded in the tasks. When we encourage students to go through the struggle of trying to accomplish rigorous tasks, and not repeatedly “walking them through it,” they gain a practical understanding of mathematical concepts.



[See *Math Buddies*, p. 5]

**Math Buddies**, (from p.1)

*Math Buddies* is a “win-win” situation for all involved. It also serves to strengthen the bonds of your entire school culture and community. It takes a little work to prepare for it, but how can anyone resist? The payoff makes it all worthwhile.



Steve Lippitt is a mathematics coach at Liggett Elementary in Panorama City. If you would like more information regarding Math Buddies, you can email Steve at [slippitt@lausd.k12.ca.us](mailto:slippitt@lausd.k12.ca.us)

**Dilemma**, (from p.1)

would help.) Some students make a practice, a concerted effort to be overlooked. You know who they are and we often do not put forth the effort to engage these students. So again, use TAPPLE. This is a method that has been proven to engage all students for the entire day.

Our precious commodity is our teachers and our greatest resource is our students. Let us always keep student achievement in the forefront of our minds. In Dr. James Morris’ words to the coaches, “Let’s do the best job for kids every day, in every classroom.”

Finally, I would like to ask you to ponder the following question. *Do you know the cultural climate that the coaching model has brought about?* Teachers, you have a teammate that you can talk to, who will service and aid you WITHOUT evaluating you. You have a built-in “compadre,” or “double” right there in your school. Talk to and seek help from your coach.

*Students love math coaches. Not a day goes by at either school, where I coach, that a student does not come up to me with a gleam in their eyes, to say “When are you coming back to our room?”*

Joan Woodford Abu Bakir is a mathematics coach at Glenfeliz Elementary and San Pascual Elementary.

**WANTED**

Dr. Marcia Tate, author of *Worksheets Don't Grow Dendrites: 20 Instructional Strategies that Engage the Brain*, is looking for engaging math lessons to feature in her newest book. If you are interested all you need to do is send Marcia your lesson along with your name and school. Make sure to explain your activity in enough detail that others will be able to replicate the activity. Send your submissions to [marciata@bellsouth.net](mailto:marciata@bellsouth.net).



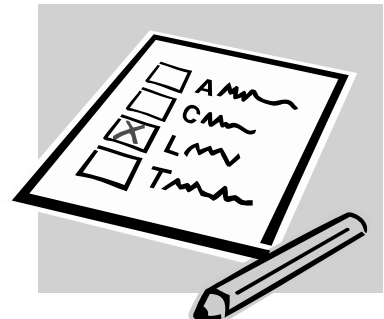
**LACTMA ELECTIONS 2007**

It’s election time again! The following pages contain statements of candidacy submitted by press time. The statements are printed in alphabetical order by candidates’ last name and appear unedited. Please vote by mailing the enclosed Official Ballot (printed on white paper) to:

**Maria Agazaryan**  
c/o Birmingham High School  
17000 Haynes Street  
Van Nuys, CA 91406

**Ballots must be postmarked by JUNE 1st , 2007.**

LACTMA is *your* organization. Vote and let your voice be heard!



**Statement of Candidacy: ANA BATRES, Candidate for Director of the Board 2007-2009**

My name is Ana Batres, and I am humbled to be considered by you to become a member of the LACTMA Board of Directors. I have been a Math Coach at Victory Elementary in District 2 for three years and have been teaching for ten years. However, I discovered the power of mathematics much before becoming a coach or a teacher. As a young, ten year old student newly arrived from Guatemala to the United States, my common language with my new world was mathematics. I knew, as I struggled with the new culture and language, that I had power through my skills and understandings of mathematics. There were very caring and powerful teachers that allowed me to develop and flourish in this academic area. I truly believe that those teachers and mathematics gave me the opportunity to succeed in this country. My desire is to help bring that same opportunity to our students today. Being an active member of this very dynamic board will allow me the opportunity to reach teachers, students and other members of our Greater Los Angeles mathematics community. I will bring my passion and belief in students, teachers, and mathematics, along with my strong leadership and organizational skills to this board if I am elected.

**Statement of Candidacy: JULIE KEIPER, Candidate for Director of the Board 2007-2009**

My name is Julie Keiper and I am currently the math coach for Chatsworth High School and a part-time instructor at California State University, Northridge. It has been my pleasure to serve on the LACTMA board for the past two years and with your support I will be able to continue working with this fine organization. For more than thirty years I have participated in the spectrum of math education from elementary through secondary education. I know how important it is for us as educators to communicate and share our success with best instructional practices through high quality professional development. LACTMA provides many opportunities for effective communication and professional development through their newsletter, recognition banquet and annual conference. My goals as a member of the LACTMA Board of Directors would be to support all of the fine traditions of this organization and to contribute my time and talents as we strive to continually improve on what is already in place.

Thank you for your vote.

**Statement of Candidacy: ALISON LEE, Candidate for Treasurer 2007-2009**

Dear LACTMA Members,

It has been my pleasure to serve on the 2005-06 LACTMA Board in the capacity of Treasurer. Last year, due to an unexpected vacancy, I was appointed to the position. This year I am submitting my name for election to the office. I believe my experience over the past year as well as the work that I do as the Elementary Mathematics Expert in LAUSD, Local District 2 qualifies me for this job. Over the past few years I've benefited greatly from leaders in the mathematics education community. It is my turn to serve my fellow teachers by working with the LACTMA Board of Directors to bring high quality professional development to those of you who continually seek to improve your practice and raise student achievement. Equally important is the work LACTMA does to publicly recognize your efforts towards student understanding of mathematics. If elected to be the LACTMA Treasurer, I can continue to play a vital role in the day-to-day operations of an organization designed to support you, the Los Angeles City Teachers of Mathematics.

**Statement of Candidacy: SANDRA MAST, Candidate for Director of the Board 2007-2009**

I have attended LACTMA events for eleven years and have been volunteering at them for two. I am a first year math coach in LAUSD Local District 1.

I will bring a perspective from the elementary school site to this board. As a math coach I have the opportunity to see what is going on in the K-5 classrooms and will be able to share the successes and challenges today's teachers are experiencing. This will help shape the focus of this organization to meet the needs of its members.

**Statement of Candidacy: ALEJANDRO RAMIREZ, Candidate for Director of the Board 2007-2009**

My primary qualifications to serve on the LACTMA board come from my work as an elementary school teacher and math coach. As a teacher, I developed a passion for math instruction and a desire to learn and grow beyond my own math experience in order to better serve my students. As a math coach, I have worked with teachers at Camellia Elementary and in district wide concept lesson training of 4<sup>th</sup> and 5<sup>th</sup> grade teachers to help advance their thinking and pedagogy in the area of math instruction. Through these experiences and training, I have recognized the importance of excellent mathematics instruction to the future of our students and our country.

For the eight years prior to becoming a teacher, I was vice-president and senior project director for a marketing research firm that specializes in studying the U.S. Hispanic population. In this role, I developed bilingual quantitative questionnaires, managed projects, analyzed data, wrote reports and presentations, presented to clients, and moderated focus groups. In addition, I established a data processing department and a phone bank equipped with computer assisted interviewing stations.

[See *Statements*, p. 7]

*Statements*, (from p.6)

**Statement of Candidacy: ALEJANDRO RAMIREZ, Candidate for Director of the Board 2007-2009 (Continued)**

These seemingly unrelated experiences allowed me to develop computer and communication skills that have been essential in my growth as a teacher and instructional leader. I am currently exploring the use of Wikis and other collaborative websites in coaching and teaching.

I believe that this combination of experiences and interests have prepared me to serve on the board of LACTMA as a director.

**Statement of Candidacy: ELISA ROSE, Candidate for Director of the Board 2007-2009**

I am honored to have my name placed in nomination for a member of the LACTMA Board of Directors. I want to represent the LACTMA membership as we implement our mission. As the Secretary, I would keep a record of the LACTMA proceedings of the meetings of the association and of the Board of Directors. In addition, I would maintain a current roster of the Board, write necessary letters and send announcements of meetings to Board members. We face a future that demands clear communication and commitment to maintaining relationships with the mathematics community in the Los Angeles area. I want excellent communication to occur between the members of the Board, ensure that the appropriate structure is available to keep Board members informed, and focus on excellence in mathematics teaching and education. I want LACTMA to continue linkage with organizations such as CMC and NCTM because that enhances our knowledge base and provides advocacy for mathematics education and research. I want LACTMA to provide one of the best annual conferences available to mathematics educators in the Greater Los Angeles area. I want to hear what is important to the membership. My work as a Secondary Mathematics Coach, and a Web-based LAUSD District 3 Newsletter editor requires me to maintain excellent communication between colleagues on site as well as at local and district levels. I am excited to have the opportunity to work with colleagues who are committed to continuing the amazing progress LACTMA has made. Thanks for your support.

**Statement of Candidacy: CHRISTINE STRAYHOLM, Candidate for Director of the Board 2007-2009**

Statement not available at time of print.

**FAREWELL, ADIEU!**

Outgoing Officers and Directors of the Board bid farewell.

**Andrew Jenkins, Vice-President, 2005-2007**

There is no greater reward in education than to experience learning in action. As the conference chair and vice president for LACTMA, I have had the honor of sharing ideas and insights with educators in the Los Angeles area who seek opportunities to deepen their understanding of best practices in mathematics education. Although I am ending my service with the board, I will remain active in the organization and encourage members to do the same. Thank you for your support and dedication to the students of our great city. Andrew Jenkins ☺

**William Chang, Director of the Board, 2005-2007**

Serving in LACTMA with my illustrious fellow Directors of the Board over the last two years has truly been a privilege. I have enjoyed and learned much from working on LACTMA's website and *The Calculator* newsletter, among other projects. During my tenure on the Board, I have had the chance to meet and collaborate with a wonderful audience. To the membership, I thank you for your support and I hope to have served as a fair steward for the cause that this organization represents. I would like to extend my respect and admiration to the work of this entire Board and its Officers while tipping my hat to those who carried this torch before me and entrusted me to carry it on my own. Thank you all, for your kindness and collegiality. This has been an experience of a lifetime and I shall cherish it as such. Humbly yours, William Chang ☺

**Mary Olson, Director of the Board, 2005-2007**

It has been a truly fulfilling experience to serve as a member of the Board of Directors of LACTMA. The challenge of continuing the quality activities of the organization have taught me much about what individuals can do when they work together toward a common goal. It was an honor to be a part of the Annual Awards Banquet in recognizing the work that our members are part of every day in the classrooms and schools around the city. Helping to bring quality presentations to local educators during the annual LACTMA Conference was work that allowed me the opportunity to meet many dedicated professionals.

I am proud of my affiliation with LACTMA and hope that I have proven worthy of the faith the organization entrusted to me as a member of the Board of Directors. Mary Olson ☺

LACTMA  
Alexandra Lomento  
25481 Dodge Ave #5  
Harbor City, CA 90710

PRSRT STD  
US POSTAGE PAID  
MARKETSHARE

2007 ELECTION ISSUE

[www.lactma.org](http://www.lactma.org)



**LACTMA Membership Application (also available online at [www.lactma.org](http://www.lactma.org))**

Name: \_\_\_\_\_ School: \_\_\_\_\_  
District: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Home Phone: \_\_\_\_\_  
Home Address: \_\_\_\_\_  
City/Zip: \_\_\_\_\_ Email Address: \_\_\_\_\_

**Los Angeles City Teachers' Mathematics Association**

New member  Renewal\* \_\_\_\_\_ years at \$15 per year \$ \_\_\_\_\_

**California Mathematics Council membership**

New member  Renewal\* \_\_\_\_\_ years at \$50 per year \$ \_\_\_\_\_

\*Please include membership number if renewing\* Total Enclosed \$ \_\_\_\_\_

**National Council of Teachers of Mathematics** Call toll-free at 800 235-7566 to apply for membership

Make check payable to LACTMA Affix proper postage and send via US Mail to:

Alexandra Lomento 25481 Dodge Ave. #5, Harbor City CA 90710

LACTMA is a local affiliate of the state & national mathematics associations. It is a non-profit organization established by mathematics educators for mathematics educators, staffed entirely by volunteers. The three-fold purpose of LACTMA is to:

- Contribute to the professional growth of teachers of mathematics.
- Promote mathematics programs on each level which will provide an education relevant to students, teachers, and community.
- Encourage membership in local, state and national mathematics associations.