

HCTM

HCTM Newsletter

HAWAII COUNCIL OF TEACHERS OF MATHEMATICS

January 2012

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President's Message

Scott Powell, 2011 – 2012 HCTM President

Aloha Math Educators,

I hope that everyone had a wonderful and blessed Christmas and a Happy New Year. I would like to give you all encouragement as we head into a new semester and all that this brings. I hope that this past year has brought you (and your students) lots of accomplishments and joy as you both learn and use mathematics. There are some key questions that you should be asking. What can I improve? What can I change? What new “thing” can I try or adopt?

I have the answer (at least partially) for some or all of those questions. It involves quality professional development brought to you annually by your Hawaii Council of Teachers of Mathematics (HCTM). Coming on February 18 (presidents day weekend) will be the annual spring conference this year at King David Kalakaua Middle School. This year promises to be another great conference. Please think seriously about joining us at this conference.

On behalf of our board I would like to wish you a Happy New Year!!

Sincerely Yours

Scott

HCTM Spring Conference Recap

Who: Math Educators of EVERY grade level
What: 2012 Spring Conference: Educational Techniques for K-12+
When: February 18th, 2012
8am-2:30pm [Registration will start at 7:30am any early birds]
Where: Kalakaua Middle School
821 Kalihi Street
Honolulu, HI 96817
How: Register now at <http://2012springconference.eventbrite.com/>
[You can also visit <http://www.hctm.org> for an easy “Click and Register” link to the Eventbrite Registration Website]

Calendar of noteworthy events:



St. Louis Papahana

January 28, 2012

St. Louis High School

HCTM Spring Conference

February 18, 2010

King David Kalakaua Middle School

Have another event you think others in our community would like to know about?

Feel free to submit interesting websites and articles as well!

Email egabriel@sacredhearts.org

Twitter Announcement

Chase Cabana, Student Representative

Hey there Everyone!!

In addition to a Facebook account, HCTM has also started it's own Twitter account. Those of you who are Twitter users, show your support for HCTM and follow us now @808_math!! Just like our Facebook, we will do our best to use this account as a way to stay in contact with all of our members more frequently and to keep you updated on all of the happenings of HCTM.

To celebrate our jump into the new social networking media technologies, we have decided to incorporate our newly founded Twitter account with one of the door prize contests at our 2012 Spring Conference!!

We felt it would only be appropriate to have tech-related door prizes for our newest tech-related endeavors so... Up for grabs in this Twitter door prize are TWO coupons for **\$50 off** a TI-Nspire CX Calculator!! That's right, TWO coupons so that means there will be TWO lucky winners receiving one coupon each.

In order to enter this special contest, all entrants must...

- ❖ Have their own Twitter account
- ❖ Be a follower of our Twitter account (@808_math)
- ❖ Have the tech means to "tweet" from on the day of the conference (Feb. 18th)

An announcement will be made on the morning of the conference indicating specific #hashtags to be used as a means of entry! All twitter users using the particular #hashtags will be put into a pool of entrants and the winners will be randomly chosen and notified during lunch.

So if you've got a Twitter account already, go ahead and follow us now! If you don't have a Twitter account yet, go sign up at twitter.com – it's free and easy – then follow us so that you'll be all set for the Twitter Contest!!

Exhibitors For The 2012 HCTM Conference

The following companies will be holding exhibits of their products at the 2012 HCTM Conference on Saturday, February 18, 2012 at King David Kalakaua Middle School at 821 Kalihi Street in Honolulu, HI. Their exhibits will be held in the Library.

PEARSON

CPM EDUCATIONAL PROGRAM

TEXAS INSTRUMENTS

WHIZZ EDUCATION

A PLUS EDUCATIONAL PROGRAMS

HOUGHTON MIFFLIN HARCOURT

MCGRAW-HILL SCHOOL EDUCATION GROUP

If anyone else would like to be an exhibitor, please email Meryle Hirotsu at mhiro2006@yahoo.com for an application.

--THE SPRING CONFERENCE IS RIGHT AROUND THE CORNER--

The annual HCTM Spring Conference is *less than a month away* so be sure to register online ASAP. The conference committee has been diligently working away to plan and organize this conference so that mathematics educators from all over the Hawaiian islands and beyond can come together for a wonderful day of professional development!!

This year, our spring conference will take place on *February 18th, 2012* and will be held on the King David Kalakaua Middle School campus located off of Kalihi Street. We have been fortunate enough to assemble a wide variety of top-notch speakers and exhibitors who are excited to share the latest and greatest research, techniques, programs, and products in the field of mathematics education. As always a bunch of door prizes await several lucky conference attendees. In fact, two of our tech-oriented door prizes in particular will involve HCTM's recently started twitter account (please see Twitter article on page 2 for more details).

The conference theme of *Educational Techniques for K-12+* has truly pushed us to enlist a well-balanced group of speakers; we will have presentations targeted towards elementary, middle, and high school teachers – a few even include college-level in their focus as well.

Mainland speakers for this year's conference include *Megan Donnelly & Jessica Elbern* of Pearson, *Janice Grow-Maienza* of Truman State University, *Ken Johnson & Bill Miller* of FIRST (For Inspiration and Recognition of Science and Technology), *Kevin Judd* of Whizz Education, and *Laura Reed* of Windham Regional Career Center.

Throughout the day, we will have multiple sessions focusing in on what many educators consider to be two of the "*hottest topics*" in mathematics education today – Singapore Math & Common Core State Standards (CCSS).

A long listing of local Hawaii based education experts including Debbie Kula, Dewey Gottlieb, Lance Suzuki, and Linda Venenciano have also graciously pledged to donate their time, experience, and knowledge to speaking on a plethora of different topics that will be sure to catch your attention. Whether you are looking forward to the leading experts of recent teaching techniques, the chance to tinker with the state-of-the-art classroom tech and gadgets, or the numerous original and always innovative lesson ideas of colleagues... the HCTM 2012 Spring Conference is sure to have something for *each and every* teacher in attendance!!

Registration will once again be online via Eventbrite.com. Please visit HCTM's homepage (<http://www.hctm.org>) for the easy "Click and Register" link to the registration website. During the registration process, don't forget to choose your entrée from our yummy lunch menu from Makino Chaya and Zippy's.

Can't wait to see all of you there!!

Hawaii's Unsung Heroes Meryle Hirotsu, HCTM Historian

The coaches of the Oahu Math League volunteer their time to teach and coach mathematics to those students who love the subject. They attend 7 weekend meets during the year at various school locations in the city and spend hours in preparation for the events. All of this with no compensation. DOE school teachers receive no recognition and no pay for their dedicated service. A few of the private school coaches, however, receive a modest stipend.

With the recent cut in pay and health benefits, a teacher in a DOE school in Hawaii is probably thinking, "What did I do to deserve this?" With 7 furlough days, large class sizes, and a workload that would zap the energy out of any conscientious educator.... Why would anyone with this load want to take on more? This article is about the unsung heroes of Hawaii, namely the coaches of the Oahu Math League.



From left to right: **Calvin Fukuhara, Michael Park, Tim Cantley, and Michael Ida**

Featured are the coaches who have dedicated 10 or more years as coaches.

- **Calvin Fukuhara** coached for 18 years at Kamehameha HS and 5 years at Maryknoll HS
- **Michael Park** coached for Iolani for 24 years and at McKinley HS for 2 years.
- **Tim Cantley** and **Deborah Kula** coached for Sacred Hearts Academy for 20 years.
- **Michael Ida** coached for 15 years at Kalani HS.
- **Carolyn Okunaga** coached for Mililani HS for over 30 years.
- **Chenfu Chiang** coached for Hanalani HS for 17 years.
- **Hal Parker** coached for Punahou for 12 years.
- **Joyce Kanja** coached for Mid-Pacific Institute for 19 years.

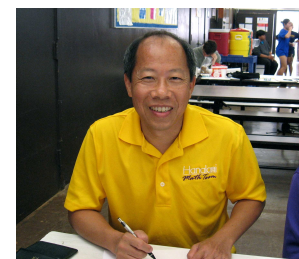
These 9 coaches spend a combined total of 68 hours a week in preparation for the meets outside of the academic school day. They also represent a combined total of 182 years of dedicated service.



Carolyn Okunaga



Candace Kanja & Hal Parker



Chenfu Chiang

The following is a list of the schools participating in the Oahu Math League and their coaches.

2011-2012 OML Coaches

School	Coach	School	Coach
Aiea	Justin Yoshimoto	Mililani	Carolyn Okunaga
Campbell	Ryan Yoneshige	Moanalua	Jason Nagaoka Judy Tateyama
Damien	Lisa Bendall	Mid-Pacific	Candace Kanja Christine Kashiwabara
Hanalani	Chenfu Chiang	Pearl City	Alvin Adaniya
Hawaii Baptist	Cameron Taketa	Punahou	Hal Parker Christine David
Iolani	Michael Park Kathleen Goto Amy Yonashiro	Radford	Grant Takiguchi Maria Oka
Island Pacific Academy	Chris Luthi	Roosevelt	Jayson Kunihiro
Kailua	Angla Kung Joy Nishida	Sacred Hearts	Tim Cantley Deborah Kula
Kaiser	Scott Iwanaga	St. Andrews Priory	Ashleigh Hess
Kalani	Michael Ida	St. Louis	Sam Sea
Kamehameha	Calvin Fukuhara Lance Ogata Chauna Valdez	Waipahu	Suk Han Cheung Edmar Ramos Regina Cambra Gabriel Correa
Kapolei	Lynne Yamaguchi Justin Kaupu	Waianae	Star Williams
Maryknoll	Lance Suzuki	University Lab	TBD
Maui	Clarice Lee		
McKinley	Jon Furukawa		

 WE SALUTE THE DEDICATED COACHES, TEACHERS AND THEIR TEAMS FOR YEARS OF
 DEDICATED SERVICE. YOU ARE OUR UNSUNG HEROES AND WE THANK YOU!

HISTORY OF HCTM

If anyone has any old newsletters, minutes, photographs, programs, or other memorabilia to add to the historical development of HCTM, please mail them to

Meryle Hirotsu
 1626 Royal Palm Dr.
 Wahiawa, HI 96786 email: mhiro2006@yahoo.com

Copies will be made and originals mailed back to you. Thank you.

STUDENT PURPOSE IN MATHEMATICS ACHIEVEMENT

Dr. Marlow Ediger

A very important factor in student learning is perceived purpose. Students then need to understand reasons for pursuing what is being taught. If they believe that what is being studied is busy work or unimportant, learner achievement will tend to go downhill. It behooves the mathematics teacher to assist students to realize that lessons and units of study have purpose. Establishing purpose for each lesson may not take long. The teacher may state the purpose clearly to primary grade pupils, such as, "The reason for studying subtraction is that you will want to know how much of allowance money is left if certain items are bought." Language used here must be developmentally appropriate and the example being used is relevant. The example can be clearly demonstrated with coins or other concrete objects. It becomes increasingly difficult to develop purpose within older students with the goal being to ascertain the area of a circle, for example, and why the computation is used in the teacher devised demonstration. Concrete and semi-concrete materials should be used for meaningful learning. Purpose in learning here is indicated by looking at illustrations of circular drives and circular windows in buildings. The circles here take up space and the area must be ascertained to secure correct window size as well as materials necessary for completing a circular drive.

Purposeful Experiences

Purposeful experiences emphasize what is relevant to the involved learner. Relevancy means that subject matter in mathematics is useful in school and in society. Thus, for example, counting experiences for young children may stress the following purposeful activities:

- * counting the number of children who want milk today in the school milk program
- * counting the raised hands for those wanting menu one, two, or three in school lunches at noon
- * counting the number of children seated in each row in the classroom
- * counting the number of plates, plastic utensils, and cups for four children in a role playing activity seated at the kitchen center

Creative teachers use every day lifelike experiences to involve children in mathematical activities. These experiences are seized upon as the necessary situation arises. With practical uses for counting, the child's growth in enumeration provides situations for sequential growth. It also makes children more aware of relevant uses in mathematics. They love to count objects intrinsically when opportunities arise. Each experience provides occasions for increasingly more complex uses of number. Thus, seeing the abstract numeral for each ordered set of objects might well bring in addition as in joining two sets together to make for one set, 3 plus 2 equals 5, or subtraction with $5 - 2 = 3$ as well as $5 - 3 = 2$. The commutative property for addition is learned as well as subtraction undoing addition. Perceiving purpose in number relationships is highly important. With quality sequence, the learner is able to perceive purpose in increasingly complex uses of number in mathematics (Ediger, 2006).

Interest Factors and Relevancy

Interest is a powerful ingredient in achievement. With developed interest, the student is able to hurdle more complex learnings. If interest is not there to begin instruction in a new process, the teacher must develop it within learners. There are several ways of doing this, such as

- * varying the kinds of materials used involving concrete (using objects and items), semi-concrete (illustrations, drawings, graphic items, pictorial representations, and diverse charts), and abstract materials as in (mathematical symbols, numerals, as well as textbook content.
- * varying the methodologies used in instruction (using implicit, explicit, guided practice, learning by discovery, authentic learning, and demonstrations).

The human voice is a powerful means of expressing facts, concepts, and generalizations in mathematics. It can be modulated to engage students in learning. Words may be pitched higher or lower, as well as varied pauses between words and sentences might well be used for effective teaching. Stress of words may also be varied for improved communication. Thus, stressing a word more than others might help students to realize what is salient in a given learning experience.

Mediated action provides a learner with relevant tools of instruction.

Thus, the teacher assists students to use cultural tools such as a compass, protractor, ruler, number line, and technology, among others, to find solutions to problems. Interactive means of learning, here, are important (Wertsch, 1998). Students grow more proficient in learning as they use what has been initially acquired. Adult assistance is needed in mediation between the learner and the cultural tool.

Vygotsky (1934/78), believed strongly that ideas are mediated within a group. As subject matter is discussed and analyzed, it is synthesized and becomes more meaningful through interaction with others. There are diverse procedures involved in arranging a discussion as in understanding a new process in mathematics. Dyads, committees, small groups, and the class as a whole, for example, might then discuss finding the volume of a cylinder by using what has been learned previously. The background information acquired previously will then be used to ascertain volume in a purposeful activity. With interaction between and among learners occurs, modification of ideas occurs with critical and creative thinking in a problem solving situation. Mediation is a salient concept in these interactions.

Quality oral communication skills assist in presenting ideas clearly. They are developed sequentially in group settings. In an atmosphere of respect, students feel free to present needed ideas. Communication skills in securing ideas may also come from abstract, written materials in print. Thus, reading of mathematical content becomes important. In a specific reading experience from the basal textbook, the teacher may determine the purpose, after readiness has been established, in saying "Lets read to find out how to determine the area of a right triangle." Or, "Lets read to determine the meaning of a rhombus." It is good if students raise a question and then reading is done to secure an answer. The purpose then is student centered. The latter approach increases student perceived purpose (Ediger and Rao, 2007).

*References

Ediger, Marlow (2005), "Teaching Mathematics in the High Setting," *College Student Journal*, 39 (4), 711-715.

Ediger, Marlow (2006), "Writing in the Mathematics Curriculum, *Journal of Instructional Psychology*, 33 (1), 120-123.

Ediger, Marlow, and d. Bhaskara Rao (2007), *Reading Curriculum and Instruction*. New Delhi, India: Discovery Publishing House, Chapter Six.

Vygotsky, L.S. (1934/1978). *Mind in Society; The Development of Psychological Processes*. Cambridge, Massachusetts: Harvard University Press.

Wertch, J. V. (1998), *Mind as Action*. New York: Oxford University Press.

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