



# The AEOE Newsletter

FALL 2011

“Must we always teach our children with books? Let them look at the mountains and the stars up above. Let them look at the beauty of the waters and the trees and flowers on earth. They will then begin to think, and to think is the beginning of a real education.”

- David Polis

## This is Your Brain on...Cerebral Summarizing

By Helen de la Maza

Remember that old saying, “You don’t know if you really know something until you have to teach it?” Have you ever started to explain something to a colleague and realized that you are confusing yourself and your colleague because you are not quite clear on the concept? When you teach students, whether outdoors, in a classroom, in a museum, in a forest, or at home, you probably want them to walk away from your lesson knowing at least some of the information you have taught them, hopefully well enough that they could explain it to a parent, friend, neighbor or spouse. Although you cannot absolutely guarantee that this will happen, there are techniques you can use during your lessons to facilitate student learning and retention (remembering the information).

Student learning is increased when teachers use hands-on interactive and cooperative activities in combination with direct instruction, are engaging, and relate information to students lives.

### *Filtering External Stimuli*

Our brains are constantly receiving and filtering information from our environment. In fact, for most of us, approximately 99% of all information is filtered out (yep, “in one ear, out the other” is figuratively true). This information does not make it through the initial “screening” and is deemed unimportant to our survival or well-being. Some students have attention

See *Cerebral Summarizing*, page 3

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**FALL CONFERENCE INFORMATION  
INSIDE!**

**INFORMATION ON HOW TO REGISTER,  
PRESENTING A WORKSHOP, AND MORE**

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## A Message from the Northern Chair

As I peer out my window and see a few leaves starting to change from green to red, I am looking forward to my favorite season – autumn. And with it, I am excited about the upcoming AEOE Northern Fall Conference, which will be held Nov. 4-6 at Little Basin, near Boulder Creek in the Santa Cruz Mountains.



Not only is this a new site for AEOE, but it also became public land just a few months ago. A former Hewlett-Packard retreat, Little Basin was saved from logging or being divided into 13 lots for homes. Instead it was acquired by two land trusts, the Peninsula Open Space Trust and Sempervirens Fund and turned over to the State of California in a unique cooperative venture. State parks added it to Big Basin Redwoods State Park as a group campground, and it is managed by United Camps Conferences and Retreats. Little Basin will be the newest site used by Web of Life Field School (WOLF) for both student and adult outdoor education.

Little Basin has campsites nestled among the redwoods along with rustic bunk-bed cabins with mattresses (no heat or electricity) that sleep 8 people each. It also has plenty of space for recreation (tennis court, basketball court, fields), hot showers, and great hiking trails connecting to Big Basin. We look forward to another amazing gathering in November with insightful workshops, great music, gaining inspiration from each other and the world around us. I hope you will join us at the Northern Fall Conference.

-Robb "Big Brown Bat" Stolberg

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**SPREAD THE WORD! MARK YOUR CALENDARS!  
THE 2012 STATEWIDE SPRING CONFERENCE IS COMING!**

**APRIL 13—15 AT CAMP HESS KRAMER IN MALIBU**

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## ***Cerebral Summarizing, continued from page 1***

difficulties because their filtration systems vary, and therefore they may become distracted by nonessential stimuli. When you are teaching, what other stimuli are the students receiving that are in competition with you? Take a minute to think about the environment in which you teach. If you are outside, students are bombarded with stimuli which in many cases is unfamiliar to them and therefore makes it through the filter (“Look, look, it’s a squirrel!!!”). If you teach inside, there might be the fascinating items in one’s desk to distract a student, the flickering fluorescent light in the ceiling, or the clickity-clack of a docent’s shoes along the museum floor. With all of these distractions, it is easy to understand how the students may miss some of what you are saying!

### ***Processing Information***

When students are effectively filtering out nonessential stimuli and seemingly paying attention to you, they may actually be inwardly focused because they are integrating the information you are sharing. Perhaps you have experienced this yourself. Someone is telling you a story about kayaking in Puget Sound and this reminds you of your wonderful experiences canoeing with AEOE down the Colorado - the smells of nature, the feel of the water splashing on your skin -

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*“One method of dealing with your students’ level of attention varying...is by repeating information and presenting it in a variety of formats that are suitable for different learning modalities.*

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then you realize you have missed some of the conversation. This happens because the area of the brain that processes language can not hear it and think about it at the same time. Another good example of this is taking notes during a lecture. If something you write down is confusing, you begin to process it to try to figure it out and integrate it into your prior knowledge, and before you know it, you have missed the new information being shared. Processing two inputs at the same time is nearly impossible. Feel free to experiment!

The truth is that in any conversation or teaching situation, the listeners are constantly flowing in and out of “paying attention.” This may be a result of paying attention to stimuli other than the speaker, or paying attention to internal processing of information. If you, as an educator, acknowledge this, accept it, and are okay with it (it happens to everyone, no matter how interesting they are!), then you can modify your teaching to accommodate your students’ levels of attention.

One method of dealing with your students’ level of attention varying because they are paying attention to other stimuli or processing information, is by repeating information and presenting it

*See Cerebral Summarizing, page 7*

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The **Association for Environmental and Outdoor Education** supports and inspires educators in their quest for the knowledge, skills, and attitudes essential to help all learners understand, appreciate and care for their environment. As an integral part of achieving our mission, we encourage direct experience outdoors.

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## **2011 AEOE Southern Fall Conference**

**November 11-13, 2011**

### **Rancho Alegre**

*2680 Highway 154 □ Santa Barbara, CA 93105*

**Cost:** \$30 per person pre-registration; \$50 per person walk-in registration.  
Present a workshop and receive \$15 off the pre-registration cost!

**Lodging:** Registration cost includes camping or dorm accommodations.

**Food:** Meals are not included. Bring your camp stove to cook on-site.  
\*Saturday Night Burrito Potluck Dinner - Bring an item to share!\*

**Register or apply to present a workshop online at [aeoe.org/conferences/2011-fall-southern-conference](http://aeoe.org/conferences/2011-fall-southern-conference). You may also use the accompanying registration form in this newsletter to register.**

Contact Carrie Bryant Raleigh for more information at  
[carrie@sawaedu.org](mailto:carrie@sawaedu.org).

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**Cost:** \$30 per person pre-registration \$50 per person walk-in registration.  
Present a workshop and receive \$15 off the pre-registration cost!

**Lodging:** Camping or rustic cabins (bunk beds – mattresses supplied but bring your own bedding, no heat or electricity).

**Meals:** Three meals are included. Continental breakfasts on Saturday and Sunday mornings, plus a burrito dinner on Saturday night. Bring a dessert to share for Friday or Saturday night!

Parking is limited, so please consider carpooling!

**Register and apply to present a workshop online or fill out the accompanying registration form in this newsletter. For more information, visit [aeoe.org/conferences/upcoming-northern-conference](http://aeoe.org/conferences/upcoming-northern-conference).**

**AEOE Fall 2011 Conference Registration Form (Use online reg. if paying w/ cc)**

Name: \_\_\_\_\_ Your Org: \_\_\_\_\_  
 Address: \_\_\_\_\_ City, State, Zip: \_\_\_\_\_  
 \*E-mail: \_\_\_\_\_ Phone (H/W/C?): \_\_\_\_\_  
 Emergency contact (name and phone): \_\_\_\_\_

**Conference Fees:** Advance Registration **\$30** **Postmark deadlines: North 10/31/11 South: 10/29/11**  
 Walk-in On-site Registration **\$50** *If attending both conferences, please submit by 10/29/2011.*  
 Please contact us first to make sure we can accommodate you!  
[delamazah@earthlink.net](mailto:delamazah@earthlink.net) or 714-838-8990

Are you an accepted workshop presenter for this conference? (50% advance reg. discount) *-\$15.00* \_\_\_\_\_  
**Circle Conference(s) Attending:** North (11/ 4-6) \$30 / \$50 \_\_\_\_\_  
 South (11/ 11-13) \$30 / \$50 \_\_\_\_\_

**Southern Conf. Meals:** Bring your own! And also bring a potluck item to share for Saturday night dinner.  
**Northern Conf. Meals:** Saturday dinner provided. Light breakfast provided. Bring your Saturday lunch!

**Housing:** Camping \_\_\_\_\_ Dorm \_\_\_\_\_

**Membership:** Student \$15; Basic \$20; Contributing \$35; Life \$200 Membership fee \_\_\_\_\_  
*\*Note: if you are not a current AEOE member, you must join to attend the conference (fill out membership form below).*

**Total enclosed** \_\_\_\_\_

**Refund policy:** Registration and current membership is required for all AEOE activities. Please note the registration deadline. No refunds are given for no-shows or for cancellations less than 7 days from the start of the activity. 75% of the activity fee will be refunded for cancellations received at least 14 days in advance, and 50% for cancellations received between 7 and 13 days before the activity. Membership fees are non-refundable.

**AEOE Individual Membership Form**

AEOE Membership ID (if renewing member) \_\_\_\_\_

<p><b>Membership Category</b></p> <p><input type="checkbox"/> Basic \$20</p> <p><input type="checkbox"/> Student/Intern \$15</p> <p><input type="checkbox"/> Contributing \$35  <i>(Thanks for your additional tax-deductible donation to AEOE!)</i></p> <p><input type="checkbox"/> Life \$200</p>	<p><b>Membership Status</b></p> <p><input type="checkbox"/> New <i>(Includes 1 free issue of Green Teacher mag. online)</i></p> <p><input type="checkbox"/> Renewal</p> <p><input type="checkbox"/> Send paper newsletter**</p>
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Please make checks payable to: AEOE  
 Mail to: Helen de la Maza; 8 Ardmore; Irvine, CA 92602

*\*The e-mail you receive with the E-Newsletter will notify you of your AEOE membership expiration date.  
 \*\*If you select a paper copy your mailing label will have your expiration date.*

### ***Cerebral Summarizing, continued from page 3***

in a variety of formats that are suitable for different learning modalities. Here is a brief example of how this use of repetition could be included in your lesson.

You say: An adaptation is a behavior or characteristic that helps a living thing survive in its environment. For instance, the sharp beak of a hawk is an adaptation that helps the raptor tear the flesh of the animal it is eating. Some cactuses' leaves are actually spines, which are adaptations that protect them from herbivores and decrease transpiration from the leaves.

You ask: Think about your or your friend's pet dog, cat, hamster, or bird. What do you think are some of their adaptations, characteristics or behaviors they have that help them survive?

A few students share some adaptations. Each time they answer, you affirm (or correct as necessary) their answer, and after every few, you restate, "These are all great examples of adaptations, which are behaviors or characteristics that help a plant or animal survive in the environment."

Engage students in a hands-on activity in which they work with the concept of "adaptation." This may be anything from creating an imaginary critter adapted to a specific environment, to conducting a test to determine which adaptations help a plant survive in a specific environment, to acting out different adaptations or creating a rap song that includes the definition of adaptation and examples in nature.

The lesson is then concluded through a review of the initial concept, through restatement, questioning, or cerebral summarizing (*more later*).

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*"Is it time consuming?  
Absolutely. Is it effective?  
Absolutely, if you want your  
students to learn."*

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If any of your students tuned out the first time you gave the definition of adaptation, they hopefully heard it the second time, and probably heard it the third time when their classmates were giving examples. Is this time consuming? Absolutely. Is it effective? Absolutely, if you want your students to learn.

Using the strategies above, you can be confident that the students are learning. But how do you ensure that they retain the information? You would like your students to learn the concepts you

*Continued on next page*

**Are you interested in contributing to *The AEOE Newsletter*? Do you have an idea for an article that may be of interest to outdoor educators?**

If so, we would love to hear about it! Contact *The AEOE Newsletter* editor, David Dimitrie, at [newsletter@aeoe.org](mailto:newsletter@aeoe.org) for all the details. Deadline to submit articles, photos, and information for consideration for the Winter Issue of *The AEOE Newsletter* is November 15.

are teaching so the information can provide them with a foundation for future learning, and to retain at least some of it so they can teach it to someone else (the proof it has been learned). One way to ensure this is by providing opportunities for “cerebral summarizing.” This process occurs when you provide your students with the opportunity to develop their own understanding of a concept. A few examples:

- Asking students to individually “put this in your own words.” For instance, the definition of adaptation above is long and scientific. You can have the students develop a definition using their own words.
- Have the students turn to one or two teammates, and share what they learned from a particular hands-on activity. More likely than not, the students will retain this information better than other concepts. Part of the reason for this is because if the students were intrigued enough to talk about it with their teammates, it means that the topic touched them in an emotional, meaningful, and relevant way (the three key elements to reaching students).
- Have the students use a journal to reflect on their experiences, in writing or pictures.
- Divide the students into groups, engage each group in learning a different concept, then have the students teach the other groups what they have learned (“Jigsaw Puzzle” model of instruction).

Cerebral summarizing should be used every five to ten minutes in a direct instruction lesson. This provides students the opportunity to take a mental step back from the material, process it, make it their own, and then be ready to pay attention to the next set of information. Verbal cerebral summarizing is especially effective for increasing retention because it releases a neurotransmitter called acetylcholine, which is involved in long-term memory formation.

Did you get all that? Now turn to a neighbor, and explain to them two factors that may inhibit student learning, and two strategies you can use that increase the possibility of learning and retention.

*If you are interested in more information on brain compatible learning, please contact me at [delamazah@earthlink.net](mailto:delamazah@earthlink.net)*

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## **Call for Environmental Educator of the Year Nominations**

**It’s not too late to make a nomination for this year’s Environmental Educator of the Year Award!** The Environmental Educator of the Year Award was created to honor current educators who have contributed to the success of environmental education in the state. Both Southern and Northern California recipients are truly deserving of this honor. Next year it could be someone on YOUR staff!

Nominations are accepted all year for a separate winner for each section, with awards being presented at both sections’ fall conferences. The recipient must be an active member of AEOE and attend their fall conference. Nominate someone who inspires YOU! Nominations can be made online at [www.jotform.com/form/2762102390](http://www.jotform.com/form/2762102390).

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## **Organizing the Organization... AEOE Wants YOU!**

AEOE has been around for over 50 years, and our membership represents a wide variety of educators and participants in the environmental education field. As we look at projects that will strengthen our organization, **we want to apply the skills of our members** wherever possible since YOU know the organization best! We are looking for people to **volunteer for short-term projects**, often working with a team of peers in your field. If you teach, you have solid research skills that can be put to use. If you write curriculum, you have the skill to help write a volunteer manual. Experience in personnel would be useful for writing job descriptions. Management skills could enable you to help with our strategic plan, business plan, board manual, etc. This is also a great way to build skills and network! Here is a list of opportunities in AEOE where we could use your help:

- NAAEE Liaison
- WRAEE Liaison
- COSA Liaison
- ACA Liaison
- NAI Liaison
- Fundraiser

**Members are also needed to serve in fun, rewarding positions on the following committees:**

- Research
- Advocacy
- Volunteer
- Marketing
- Evaluations

In addition, **we are looking for motivated individuals passionate about an inclusive community** of outdoor and environmental educators to **join our Inclusivity Committee**. Many of you have expressed interest in being involved in this endeavor and AEOE would like to formally invite you to help us make a difference in an area we care deeply about. If you feel you would be a valuable resource in this area, please email Jymn “Scooby” Meier at [scoobyjedi@yahoo.com](mailto:scoobyjedi@yahoo.com).

To volunteer for other positions or for further information , please email [president@aeoe.org](mailto:president@aeoe.org).

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**Follow us on Facebook! And don't forget to check the AEOE website** for updated organization information, educational resources, job announcements, and much more!

**\*Visit [www.aeoe.org](http://www.aeoe.org) today!\***

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## **AEOE Board Contacts**

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**Members-at-Large:**

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**Adventure/Outings Coordinators:**

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**Adventure/Outings Coordinator:** Bryan Snyder

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