

# Fax Trax



April, 2006

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What started out as a 3 page fax document is ending up as a much longer newsletter. I hope you will look through the pages to view the literacy information from NALD, the math article from Bob Nenninger, and a variety of other bits and pieces of information. I hope to see many of you at the conference in Kamloops, and I extend my apologies to those who are unable to attend due to a conflict of three adult education events happening on the same days. Next year we will try hard to find an independent date. We are looking towards next year and hope that one of our readers will offer to host an April conference for 2007. Please contact one of the board if you would like information on doing that.

The names of the current board members are at the end of this newsletter.

*Yvonne Chard*  
President, ABEABC

## GROUNDWORK MAGAZINE

We wish to thank Jo Dunaway for her wonderful service to the ABEABC over the past few years. Her editions of the Groundwork Magazine were always attractive, informative and accurate, and she did a lot of extra work for us voluntarily. Jo regrets that she can no longer continue with her production of our magazine.

We will discuss the future of the Groundwork Magazine at the AGM. One suggestion is that we invite different organizations to produce one edition each. That would give students in some centres an opportunity to gain some valuable experience.

We have talked about having an edition on-line only, but the board has felt strongly that they like the magazine to go out 'on paper'.

The next Groundwork (or Fax Trax) will contain Bursary recipient information from around the province. Your articles are welcome for the next edition.

Please send your articles and ideas to Nita Jacob.

*We look forward to the networking, keynote speakers and workshops at the Thompson Rivers University as they host the 2006 ABEABC conference for both educators and learners from May 10-13 In Kamloops.*

Look for registration forms and further details on our website.

Or, contact your regional representative.

The theme of this year's conference is "A Celebration of Learning".

- Students have a special price of \$120 for the full conference.
- The educator's price is \$240
- The campus accommodation with linen is \$85 for 3 nights. Hotels are filling up very quickly in Kamloops.
- Note that Organizational memberships entitle one employee to the member price.
- Group rates (10 or more) are available. \$10 off per person per day.

## **A CELEBRATION OF LEARNING - CONFERENCE**

### **ATTENTION!**

Please address your registration envelope to **FINANCE DEPARTMENT-ABEABC REGISTRATION, at TRU.**

### **Workshops and Speakers**

Information on the various workshops and speakers will be available on the website. <http://www.nald.ca/province/bc/abe/confe.htm> These include Charles Ramsey, Janine Hannis, Gerry William, Kathy Mitchell, Janet Fungler, Elizabeth Templeman, Velma McKay, Devin Gambler, June Williams, Jane Parker, Darryl Hutcheon. Margaret Huff, Irish Rich McQuay and Doug Knowles

### **Corrections Education**

Once again the staff of correctional educational programs will be meeting for an afternoon (Friday) at the ABEABC conference.

### **Thursday Keynote Speaker:**



Jeanne L. Higbee began her career in developmental education and she currently serves as Professor and Senior Advisor to the Center for Research on Developmental Education and Urban Literacy (CRDEUL) at the University of Minnesota General College. She is the recipient of the American College Personnel Association (ACPA, 2005) Voice of Inclusion Medallion, the Henry Young

Award for Outstanding Individual Contribution to the National Association for Developmental Education (NADE, 2002), the award for Outstanding Article in the *Journal of Developmental Education* (2000), and the Hunter R. Boylan Outstanding Research/Publication Award (NADE, 1999), as well as the General College's 2004 Multicultural Recognition Award. In addition to serving as the chair of the College Reading and Learning Association (CRLA) Media Advisory Board and as co-editor of *The Learning Assistance Review* for the National College Learning Center Association (NCLCA) and on numerous other journal editorial boards, she has edited

12 monographs and published more than 75 articles related to access to higher education and success in the first year of college. She has also edited a book titled *Curriculum Transformation and Disability: Implementing Universal Design in Higher Education* and is currently working on a monograph for

ACPA addressing issues for professionals with disabilities. Jeanne is the principal investigator for a new U.S. Department of Education grant to enhance discipline-specific professional development in Universal Instructional Design for faculty and student services staff.

Lee Emery and Kim Tamblyn have been very busy with other volunteers at TRU to organize this conference, and we owe them all a great deal of thanks.

Lee sent an email today saying that “our banquet is shaping up nicely. There will be live music (a one man electronic band) during happy hour and belly dancers between before dessert.. Also, we have an acoustic musician for our Thursday evening BBQ.

It’s good to know that there will be fun times as well as serious brain work going on at our annual event.

Let’s hope, for the people in the residence, that there won’t be any repeats of the intruding fire alarms which disturbed sleepers at Selkirk two years ago. (But it was fun, wasn’t it?)

## ***THE “C-WORD” AND OTHER MATH OBSCENITIES***

*By Bob Nenninger, Delta School District.*

Certain shorthand words or phrases are often used in mathematics instruction to refer to important processes. Unfortunately our students often remember only the shorthand catchphrase and forget the important underlying details or concepts. Thus the short term gain of the concise catchphrase, as an aid to remembering a mathematical procedure, is often more than offset by the long term pain as many students try to apply the “rule” indiscriminately in inappropriate situations.

Three examples of such commonly misused rules or procedures (but not yet the worst case – the dreaded C-word) are as follows:

- A. “Two negatives make a positive.”
- B. “Change the sign when moving a number to the other side of the equation.”
- C. “Cross-multiply.”

Although these are useful rules when they are applied correctly, I believe that none of these phrases should ever be uttered by any elementary or secondary math teacher, because as worded they ignore the underlying mathematical reasoning. Obviously any good teacher is going to teach for conceptual understanding first and only throw in the catchphrase as a convenient summation, especially for the weaker students, but they should be avoided entirely.

Let me quickly discuss the problems with each of these, before moving on to the dreaded C-word.

A. “Two negatives make a positive.”

Correct when referring to a product or quotient

$$\text{e.g. } (-2) \times (-3) = +6 \text{ or } (-6)/(-2) = +3$$

But often used incorrectly by students to evaluate sums e.g.  $(-2) + (-3) = +5$ .

This one is easy to fix by simply making the context explicit. E.g. “Negative times negative is positive”, or “The product of two negatives is positive.”

B. “Change the sign when moving a number to the other side of the equation.”

Correct application  $x + 2 = 4$  is changed to  $x = 4 - 2$ .

Incorrect application  $2x = 4$  is changed to  $x = 4/(-2)$ .

Although this error is not as common as that shown for A above, it happens. Fortunately it is easily avoided by replacing B with the more general and relatively foolproof rule, “Whatever operation you perform on one side of the equation, do the exact same on the other side.” Obviously this rule only supplements and does not replace extensive instruction in equation solving.

C. “Cross-multiply.”

Surely there can't be anything wrong with cross-multiplying, some readers are saying to themselves. Isn't that the tool we use for solving proportions, one of the most practical concepts we teach. Well I say we can and should do without it. We as math teachers should never use this expression or demonstrate it in our classes. Why not? Because it is only a special case of a more general technique for solving rational equations, and we should teach the general case. The problem is that students are so impressed by cross-multiplying that it becomes the solution to every problem containing rational expressions.

Examples:

Teacher, “How do you simplify  $\frac{2xy}{3z} \times \frac{5x^2z}{3y^3}$ ?”      Student, “Cross-multiply!”

Teacher, “How do you simplify  $\frac{2xy}{3z} + \frac{5x^2z}{3y^3}$ ?”      Student, “Cross-multiply!”

Some students want to cross-multiply whenever they see two rational expressions written next to each other.

e.g. Teacher, "Solve the following:  $\frac{5x}{3} = \frac{4x}{6} + 3$ "

Student, "Easy, just cross-multiply!"

$$\begin{aligned}5x * 6 &= 3 * 4x + 3 \\30x &= 12x + 3 \\18x &= 3 \\x &= \frac{1}{6}\end{aligned}$$

Instead of cross-multiplying we should just teach them to multiply each side of any rational equation by the LCD (or any common denominator). Here is the general technique (for which cross-multiplying is a special case) that works for all rational equations, not just the simple ones. Of course it's just a version of the rule already given (and underlined) in B above.

I hope that the reader can see the need to eliminate the above catch-phrases from our math classes, but the real nonsense which I believe must be completely eradicated from all math classes, at all levels is the dreaded (and dreadful) C-word - cancel. Cancel, a word that seems to mean everything and nothing... Actually this is a bit tongue in cheek, because it is not really the word cancel that is the problem, but rather how it is used.

Consider the following simplifications:

$$\text{I} \quad \frac{2x}{2y} \rightarrow \frac{x}{y} \quad \text{and} \quad \text{II} \quad x + 2 = y + 2 \rightarrow x = y$$

Each of the above is often described by students as "cancel the 2s". At least some teachers must also be using the same wording because students had to learn it from somewhere. However, I and II are somewhat different mathematical operations as clarified below.

### The Problem with Cancelling

Surprisingly, many of our students forget things that they previously knew. Yes, it's true!

Or else they never really learn a thing in the first place but merely parody what the teacher says and does without really understanding it.

e.g.  $\frac{2x}{2y}$  "Cancel the 2s."

$$x + 2 = y + 2 \quad \text{"Cancel the 2s."}$$

The first instance represents a number being divided by itself yielding a 1, and the second represents a number being subtracted from itself yielding a zero. Failure to make this

distinction results in errors such as the following (which probably all secondary instructors have encountered):

$$\frac{x+1}{x} = 1 \quad \text{“Cancel the x”}$$

$$\frac{x^2+1}{x+1} = x \quad \text{“Cancel an x and cancel the 1”}$$

We need to emphasize the difference between the above two types of “cancel”. I’ve been using “factor out” or “divide by” in place of “cancel” for operations such as  $\frac{2x}{2y}$ , i.e. I’ll say something like “Divide the two out of the top and the bottom,” as I do it on the board. For  $2 + (-2)$  I’ll say they “add to zero” as I cross them out. The actual word or phrase used isn’t important although the more descriptive the better.

Ultimately however the real problem is that students do not understand that it is *inverse operations* which cancel each other out, not quantities. And if this misconception is not corrected some students will start to extend canceling to functions. I.e. they will cancel the sines or logs out of an equation. They need to understand that it is the inverse of a function which cancels that function, not the same function! Therefore the concept of *the inverse* should be taught early on, and then reinforced at each level of mathematics instruction.

## ANNUAL GENERAL MEETING

The Annual General Meeting of the ABEABC will take place from 12:45-1:30 at Thompson Rivers University in Kamloops May 12, 2006  
**The agenda will include reports from the treasurer, the membership chair, the Groundwork Chair,**

**the Ministry liaison representative and the Regional Representatives. Elections will take place for 50% of the board, as outlined in our by-laws.** (see the By-Laws at <http://www.nald.ca/province/bc/abe/board.htm> at the bottom of the page)

Please give us your suggestions regarding the future of the Groundwork Magazine, and if you have any items of interest in your region, please pass them along, too. Names of the regional reps and other board members are at the end of this document.

## ***ELECTIONS TO THE ABEABC BOARD***

At the annual general meeting of the ABEABC on May 12, 2006, the following board positions are up for re-election. If you wish to volunteer, or to make a nomination (with the consent of the nominee) please send your requests to Merilynn Seeton or Yvonne Chard.

### **The Vice-President/President Elect**

- shall assume the duties of the President in the absence of the President
- in the event that the office of President becomes vacant, the Vice-President shall be appointed by the Executive to take that office. That Vice-President shall be replaced as specified below.
- the Vice-President shall chair the Projects Committee.
- the Vice-President shall serve as liaison to the organization hosting the Annual General Meeting.
- the Vice-President shall oversee Board development.

### **The Treasurer:**

- is the custodian of all monies and financial records of the Association. For projects sponsored by the Association, the Treasurer may delegate this duty to others agreed to by the Executive. Nevertheless, the Treasurer will oversee the management of project funds.
- prepares the financial statements for the Annual Report and for the Annual General Meeting, recommends a budget and dues levels for the upcoming year for the Board of Directors to present to the Annual General Meeting and prepares other reports as requested by the President or the Board of Directors.
- prepares the Annual Report to the Registrar of Societies.

### **The Secretary:**

- ensures that minutes of all General, Board of Directors and Executive meetings are taken and kept.
- will arrange all General, Board of Directors and Executive meetings and will ensure that meeting agendas are sent to participants in advance of each meeting.
- assists the Treasurer in the preparation of the Annual Report to the Registrar of Societies.
- with the assistance of the Membership Committee Chairperson, maintains the Register of Members.

### **The President-Elect:**

- position will commence at the beginning of the second year of the President's two-year term. The President-Elect will proceed to the position of President the following year.

**The Regional Representatives: Metro Vancouver, Surrey-Delta Fraser Valley, and Vancouver Island.**

- shall be responsible for representing the concerns of members and potential members in their regions at Board of Directors meetings and convey those concerns to the President as appropriate between Board of Directors meetings.
- shall actively encourage those interested or involved in adult basic education in their regions to become and remain members of the Association.
- may sponsor activities within their region which may be of interest to members and may request seed money for such activities from the Board of Directors.
- after consulting with the President, may speak on behalf of the Association with regard to issues that affect adult basic education in their region.
- will be members of the Regional Representatives Committee.

**5.4.**

**The Chairperson of the Groundwork Committee:**

- will oversee the production of a minimum of three (3) issues of *Groundwork* per year.
- will direct the activities of the Groundwork Committee which will include the Regional Representatives and others as designated by the Chairperson.
- upon approval by the Board of Directors, may hire personnel to assist in the publication of *Groundwork*.

***ELECTIONS***

*All Board Members shall be elected to two year terms of office, except the Vice-President and the President-elect, which shall be one year terms.*

*The President-Elect, Treasurer, Secretary, Chairperson of the Groundwork Committee and half of the Regional Representatives (Metro Vancouver, Fraser Valley and Vancouver Island) shall be elected in even-numbered years.*

*In general, all newly elected Board Members will take office following the Annual General Meeting. Board Members who serve as liaisons to other organizations may take office at another date in order to meet the requirements of the other organizations.*

*No Board Member shall serve more than four (4) consecutive years on the Board unless the person moves from another Board position into the position of President or President Elect.*

***HERE AND THERE***

**❖ Open Book: Accessibility Standards at NALD**

In general, Web accessibility relates to a user's ability to perceive, understand, navigate, and interact with a particular web resource. For those users with

visual, auditory, physical, speech, cognitive and neurological disabilities, Web usage can be particularly challenging. By striving to make the



Web accessible, we can provide equal access and equal opportunity to those with such disabilities. Accessibility can also enhance the experience for users who are not necessarily disabled, but have other accessibility barriers such as providing faster download times for users with a slow connection or using simple language for users of a low literacy level or those not fully fluent in a particular language.

The **World Wide Web Consortium (W3C)** has set forth a **Web Accessibility Initiative (WAI)** to provide a set of guidelines and checklists to help make the Web accessible. The guidelines are broken down into three sections of increasing priority (dubbed “A”, “AA” and “AAA”). These guidelines include:

- Providing text equivalents for non-text elements
- Using style sheets (CSS) to control layout and presentation
- Using clear and simple language
- Using appropriate mark-up to facilitate assistive technologies

Recognizing the importance of the initiative, NALD adopted the standard in 2004. Since that time, all new websites and digitized documents conform to the WAI priority 2 (WAI-AA) guidelines. For example, we have recently digitized a report by Bill Holbrow and Audrey Gardner entitled “*Building Community Capacity: Focus on Literacy*” ([www.nald.ca/fulltext/connect/impact/cover.htm](http://www.nald.ca/fulltext/connect/impact/cover.htm)), a 62-page document now fully WAI-AA compliant. **The Literacy Basics** website ([www.nald.ca/literacybasics/](http://www.nald.ca/literacybasics/)), a free, self-directed online training website for Ontario literacy practitioners launched in September 2005, is also WAI-AA compliant.

NALD will continue to provide accessible resources online. An upgrading of old resources to meet these new standards will be ongoing. As our capacity to test our resources using improved assistive technologies increases, we will be in an even greater position to provide a higher level of accessibility and usability. This will benefit not only those with disabilities, but the general population as well.

#### ❖ **Document Conversion Lab - National Adult Literacy Database (NALD)**

Across Canada, there are people who lack the literacy, numeracy and workplace essential skills to fully participate in society and in the labour market. As a result, they also lack the skills to participate adequately in their children’s education, and so the cycle continues. For them to improve their lives, they must have access to materials and resources, to training and support

which help them become self-sufficient, productive members of society. Through the World Wide Web, the National Adult Literacy Database (NALD) provides high quality, comprehensive resources for literacy, numeracy and workplace essential skills training to learners and the people who teach them. NALD’s online resources are available to anyone, at no cost, in both French and English.

Last year, there were more than 2.8 million downloads of documents in PDF format from the NALD site, by more than 5.9 million users and 22 million pages were viewed in HTML format. To make this all happen, NALD

converts documents and other resource material and distributes it through the web. It is essential that this material is accessible to persons with special needs and to people with various types and levels of access to hardware, software and the Internet.

NALD has harnessed the advances of technology to the service of the literacy community, enabling more people to access its collections. But it now needs to do more. As NALD's reputation grows and the circle of its influence expands, more people and organizations want to use NALD as a means to distribute resources to the wider community of literacy practitioners. With its current facilities and staffing levels, NALD cannot meet the demand to process documents and post them to its website for use in literacy training across Canada. It cannot ensure all its current online collection meets international standards of accessibility for persons with special needs. It cannot take advantage of offers of more learning materials, more tools that

it can make available to learners and trainers everywhere.

NALD is establishing a **Document Conversion Lab** to expand its very modest capacity to convert materials and post them to the web. The Lab will feature 12 workstations where staff can digitize material, convert it to HTML

and PDF, and post it to the Internet in a manner that meets international standards. The Lab will mean that NALD can meet the demand from its partners to distribute more material to clients, forge new partnerships which will provide access to more quality resources for learners and trainers. It will give more developers of materials a means to get their work to the people who need it.

The Lab will also afford an opportunity for people from various priority groups to gain training and work experience in document digitization and other aspects of the process. It will allow NALD to pursue further collaborations that will help it to move toward a level of self-sustainability over time.

NALD wants to work with its existing partners and to develop new partnerships with organizations which share NALD's dedication to the needs of Canadians for literacy, numeracy and workplace essential skills; with organizations which use technology to serve their clients and to advance their mission; with organizations that want to make a difference in the economic, social and cultural development of Canada and especially in the lives of individual Canadians.

NALD's partners can play many roles in launching the Document Conversion Lab, by providing equipment, facilities and other in-kind support, as well as by providing financial support.

To contact NALD :  
1-800-720-6253  
Email : [contactnald@nald.ca](mailto:contactnald@nald.ca)  
Website : [www.nald.ca](http://www.nald.ca)



RiPAL-BC is a grass roots network of individuals and organizations committed to research in practice in adult literacy in BC. We have three main objectives:

- to support research-related professional development among BC practitioners;
- to promote research in practice and create opportunities for BC practitioners to participate;
- to develop a plan to sustain research in practice in BC over the long-term.

Visit our new web site <http://ripal.literacy.bc.ca> to find out more. We also invite you to contact us directly to talk about how you can become involved in research in practice and to be put on our mailing list. Email [ripal@literacy.bc.ca](mailto:ripal@literacy.bc.ca)

### **RiPAL-BC News**

#### **Research in Practice Projects (RiPP)**

A group of five practitioners each carried out a small, individual research project about their daily practice. With support from a research friend and from the group, the projects are now in the process of being published. Look for these new titles coming soon to the RiPAL-BC website:

Beebe, Leonne (2006). The Benefits of Using Reflective Writing with Literacy Level Adult Upgrading Students.

Davies, Paula (2006) See Me: The Use of Narrative in the Classroom.

Docherty, Anne (2006). Catching Our Breath: Collaborative reflection-on-action in remote-rural BC.

McRae Dee (2006) Make it Real: Participatory Action Research with Adult Learners.

Sondergaard, Melanie (2006). Walking Alongside: Youth-adult partnerships in making change.

(cont'd on next page)

## **From the Ground Up: A Research-in-Practice Approach to Outcome-Oriented Program Evaluation**

Over the last few years, there has been an increasing emphasis on accountability and results in the public sector. Literacy programs need to be able to demonstrate their success in terms of the changes they bring about. The current system of evaluation for community-based literacy programs funded by the British Columbia Adult Literacy Cost-Shared Program (ALCSP) focuses on best practices as indicators of success, but it offers relatively little information on the impact a given program has on participants' lives at home, at work and/or in the broader community. There is a need to assess the outcomes of literacy education offered through these programs.

**From the Ground Up** is a RiPAL-BC project designed to meet this need. The project is developing unique and creative literacy-specific tools for use by ALCSP programs in measuring program outcomes. In consultation with the Ministry of Advanced Education, we are now working with six pilot sites to develop draft tools; next year the tools will be tested by all ALCSP programs. The pilot sites are: Carnegie Learning Centre, Vancouver; Columbia Basin Alliance for Literacy; Houston Link to Learning; Families in Motion, Central Gateway for Families, and PACT (Parent and Child Together), Fraser Valley; and Project Literacy Victoria.

For more information about **From the Ground Up**, contact [ripal@literacy.bc.ca](mailto:ripal@literacy.bc.ca)

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### **Exciting Opportunity**

RiPAL-BC is partnering again with PCHR (Partnering in Community Health Research) to offer a one-year research training opportunity for those working in adult literacy - related jobs in the Greater Vancouver area, starting in September 2006.

With funding from the National Literacy Secretariat, we can support one literacy practitioner to become a community research trainee with PCHR to work on the topic of **health and literacy**. This person will join the Vulnerable Populations Cluster for one day a week and work with academic and community mentors and learners on a health literacy research project.

Those employed by a college, a community organization, library or in any other literacy-related work for at least 0.8 FTE are eligible as long as their organization supports them. Up to \$14,000 is available to compensate the organization for the employee's time (one day/week for one year).

If you feel that this may be an exciting opportunity for you, please write one page describing why you would be a good candidate for this position and enclose a support letter from your organization. E-mail your letter by May 31, 2006 to [ripal@literacy.bc.ca](mailto:ripal@literacy.bc.ca)

For more information contact Marina Niks at [ripal@literacy.bc.ca](mailto:ripal@literacy.bc.ca) or call (604) 822-9943.

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## **BURSARY RECIPIENT**

*Year 2005 Bursary, presented December 2, 2005 at North Burnaby Adult Education Centre's annual graduation ceremony.*

**Bursary Recipient: Terry Fraser**

Terry Fraser began studying at North Burnaby Adult Education Centre in July, 2000. His initial goal was to master the skills required to pass the GED examinations; to that end, he attended our self-paced centre while working full-time as a security guard. When he achieved his GED in 2001, he set new goals for himself; he decided to complete his BC Adult Graduation Diploma and also develop office skills that could help him prepare to find a new job. Terry went on to take nine grade eleven and twelve courses in our high school completion program, including Principles of Mathematics 11, Technical and Professional Communications 12, Accounting 12, Data Management 12 and Business

Information Management 12. His final transcript notes that he was awarded Honours Standing as of January 2005; he had achieved eight "A's" and one "B." Instructors at our centre unanimously selected Terry to receive the ABE award, citing their respect for the effort and determination Terry brought to his studies. He was an encouraging role model for others, volunteering his time to help out around our centre. All of this took place while Terry faced a number of personal challenges, including deterioration in his health and death in his family. Terry's new goal is to train to work in medical transcription. We congratulate Terry, feeling sure that he will carry the same determined attitude forward into a successful future.

## **CANADA POST LITERACY AWARDS**

223 nominations were submitted in the 13<sup>th</sup> edition of the Awards program. The ABEABC was congratulated on being a Finalist in 2005. If you haven't seen the winners yet, you can see them at [www.canadapost.ca/literacyawards](http://www.canadapost.ca/literacyawards).

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