The Alberta Journal of Educational Research

Published in Spring, Summer, Fall, and Winter by the Faculty of Education, University of Alberta

ajer is a quarterly journal devoted to the dissemination, criticism, interpretation, and encouragement of all forms of systematic inquiry into education and fields related to or associated with education.

Editor: George H. Buck
Book Review Editor: Ingrid Johnston
Administrator: Joyce Hiller
Editorial Assistant: Edie Peters

Consulting Editors
Jim Anderson
University of British Columbia
Anthony W. Bartley
Lakehead University
Paul Begley
The Pennsylvania State University, University Park
Ardra L. Cole
Ontario Institute for Studies in Education of the University of Toronto
Sharon M. Haggerty
University of Western Ontario
Susan Hill
University of South Australia
Ingrid Johnston
University of Alberta
Sandra G. Kouritzin
University of Manitoba
Pauline Leonard
Louisiana Tech University
Dianne Looker
Acadia University
Xin Ma
University of Kentucky, Lexington

Richard Morehouse
Viterbo University, La Crosse, WI
Lorri Neilsen
Mount Saint Vincent University
Flora Ida Ortiz
University of California, Riverside
David Reid
Acadia University
Hans Smits
University of Calgary
Jeff Sugarman
Simon Fraser University
Jennifer Sumson
Macquarie University
Kelleen Toohey
Simon Fraser University
Robert Wilson
Queen’s University
Dean Wood
Alberta Learning
Jon C. Young
University of Manitoba

ajer gratefully acknowledges support from the Social Sciences and Humanities Research Council of Canada and the Alberta Advisory Committee for Educational Studies. We acknowledge the financial support of the Government of Canada, through the Publications Assistance Program (PAP), toward our mailing costs. PAP Registration No. 08236.

For subscription information see order form at the end of this issue.

Address all communications and manuscript submissions to:

The Alberta Journal of Educational Research
Office of the Dean
845 Education Centre South
University of Alberta
Edmonton AB T6G 2G5 Canada
Fax: (780) 492-0236; e-mail: ajer@ualberta.ca
URL: http://www.education.ualberta.ca/educ/journals/ajer.html
The Alberta Journal of Educational Research

Volume XLIX, Number 4, Winter 2003

George H. Buck 305 Editorial: The Möbius Strip

Articles

Lorraine Devereaux 309 Espousing Democratic Leadership Practices: A Study of Values in Action

Linda Goulet 325 Collaboration in Education: The Phenomenon and Process of Working Together

Caroline Krentz

Helen Christiansen

Cheryll Duquette 341 Perceptions of Learning and Stages of Concern Among Graduates of a Native Teacher Education Program

Ruth A. Childs 354 What Do Teacher Candidates Know About Large-Scale Assessments? What Should They Know?

Alexandra Lawson

Mansoor Niaz 368 The Oil Drop Experiment: How Did Millikan Decide What Was an Appropriate Drop?

Research Notes

Valerie A. Haines 376 Gender-Role Attitudes, Perceptions of Engineering, and Beliefs About Women in Engineering "Having it All": Are Male and Female Engineering Undergraduates Really So Different?

Jean E. Wallace

M.U.C. Ejieh 380 Characteristics and Concerns of Recruits Into Primary Teacher Education Program in Nigeria
Book Reviews

Anthony H. Normore  383  Beyond Monet: The Artful Science of Instructional Integration by Barrie Bennett and Carol Rolheiser

Jennifer Tupper  386  Citizenship in Transformation in Canada edited by Yvonne M. Hébert

Single copies of this issue are available for purchase.  ISSN 0002-4805
Please see order form at back of this issue.

Guidelines for Contributors

Submission of a manuscript to the Alberta Journal of Educational Research (ajer) implies, and is an undertaking on the part of the author(s), that neither the manuscript nor any substantially similar manuscript has been published, is in press, or is under consideration elsewhere. This is a condition for publication in ajer. Prior to publication, authors will assign their copyright to ajer by means of a standard form.

Format

Use a standard typeface and size such as Times New Roman 12 pt. and double-space throughout, including block quotations, references, and notes. Manuscripts are not to exceed 6,500 words excluding graphics. Please indicate the word count (text only) in the cover letter accompanying manuscripts. Provide an abstract of approximately 100 words either in a separate file or on a separate page. To ensure anonymity in the review process, the author's name and affiliation should appear only on the title page; the title alone heads the first page of the manuscript.

Style

ajer's editorial style conforms closely to the Publication Manual of the American Psychological Association (5th ed.). Manuscripts that do not conform may either be returned for adjustment, or editorial changes may be made. For spelling consult Webster's New Collegiate Dictionary. Spelling in quoted material must remain as in the original.

Referencing

Sources cited appear in parentheses after each reference (direct or otherwise), giving author's name (unless mentioned in text), year of publication, and page number(s) in the case of direct quotes. Enclose quotes of 40 or fewer words in double quotation marks in the text; indent quotes longer than 40 words in block format. Page numbers must be given.

List all sources alphabetically at the end of the manuscript under the heading References using the APA style.

Footnotes are not allowed, and the use of endnotes is discouraged; however, necessary brief explanatory notes, numbered consecutively and marked in the text with superscript numerals, may appear before the References under the heading Notes; citations in notes follow the same format as other references.

Graphics

Number tables and figures with Arabic numerals, and provide each on a separate page at the end of the manuscript. Prepare tables using tabs and without vertical lines. Figures, charts, and diagrams may be submitted electronically either in GIF or JPEG formats, or in camera-ready hard copy. Indicate placement of figures and tables in text, e.g., Insert Figure 3 about here.

Submitting

To help ensure an efficient review process, it is preferred that authors submit their manuscript and abstract electronically, either as e-mail attachments or as files on a high-density diskette. The preferred file formats are Microsoft Word for Windows and Microsoft Word for Macintosh. Rich Text Format (RTF) is also acceptable from either platform. If submitting a diskette, label it with originator's name, program used, and program version number.

Research Notes

The Research Notes section provides a means for educational researchers to communicate with one another about their research-in-progress. Because ajer is so widely indexed nationally and internationally, it is effective in supporting such exchanges. The Research Notes are also a useful means for reporting on smaller research
projects that have one or two findings of particular interest but do not warrant full-article treatment.

The Note should report briefly on the author's/authors' research-in-progress or recently completed research and should feature work that has not been reported elsewhere in journal publications. This current work should be situated, briefly, in the context of other pertinent scholarship, including the author's or authors' related research. The focus of the Note could be either a specific study or an overview of an ongoing line of inquiry where fuller reporting of results will not occur in print for some time. The maximum length for a Note is 1,000 words, excluding references and one or two tables or graphs. Please include a word count in your cover letter and a copy of the document either as an e-mail attachment or on diskette. Acceptable file formats are Microsoft Word for Windows and Microsoft Word for Macintosh or Rich Text Format (RTF) from either platform. To encourage communication between researchers, authors of Research Notes are asked to provide contact information including a one-line biographical note, full mailing address, e-mail, fax, and/or telephone numbers for publication with each Note. This biographical and contact information should be included in the document file on the diskette submitted. No abstract is required, but in all other respects the usual ajer guidelines for manuscripts should be observed.

Submissions to Research Notes will be reviewed for readability, rationale, clarity, logic, organization, length, and adherence to all Alberta Journal of Educational Research (ajer) guidelines. Any submission that is judged to meet these criteria will be published as soon as possible. Any submission that is judged to require revisions according to the criteria outlined will not be published, and revisions will not be invited as the Notes must be current if they are to serve the purposes identified.

To make inquiries or submissions, please contact:

George H. Buck, Editor
Alberta Journal of Educational Research
Office of the Dean
Faculty of Education
845 Education Centre South
University of Alberta
Edmonton, AB T6G 2G5 CANADA
Tel: (780) 492-3751
Fax: (780) 492-0236
E-mail: ajer@ualberta.ca
AACES is a partnership among the faculties of education at the Universities of Alberta, Calgary and Lethbridge and the Alberta Teachers Association. The main purpose of AACES is to encourage and financially support educational research in Alberta. Recent projects AACES has contributed funding to are:

<table>
<thead>
<tr>
<th>Institute</th>
<th>Principle Researcher</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>U of A</td>
<td>Dr A von Heyking</td>
<td>Preservice teachers' historical understanding: from theory to practice</td>
</tr>
<tr>
<td>U of C</td>
<td>Dr P Tarr</td>
<td>Drawing as a language in a kindergarten class</td>
</tr>
<tr>
<td>Edmonton Public School District</td>
<td>Ms S Sookchoff</td>
<td>Proving in high school mathematics</td>
</tr>
<tr>
<td>U of A</td>
<td>Dr P Steeves</td>
<td>Belonging and becoming: a narrative inquiry into continuity of experience in student teacher placements</td>
</tr>
<tr>
<td>U of A</td>
<td>Dr M Bibby</td>
<td>The implementation of balanced literacy with deaf children</td>
</tr>
<tr>
<td>Calgary Catholic School District</td>
<td>Ms Ballheim</td>
<td>The role of the teacher in facilitating a collaborative learning community in a high school mathematics classroom</td>
</tr>
<tr>
<td>U of C</td>
<td>Dr D Lund</td>
<td>Antiracism toolkit pilot study: building capacity in school activists</td>
</tr>
<tr>
<td>U of C</td>
<td>Dr T Beran</td>
<td>Evaluation of project ploughshares puppets for peace: an anti-bullying program</td>
</tr>
<tr>
<td>U of C</td>
<td>Dr S Crichton</td>
<td>Learning to go, knowing exactly where I am going</td>
</tr>
<tr>
<td>U of C</td>
<td>Dr J Towers</td>
<td>Learning to teach mathematics in an inquiry based teacher preparation program</td>
</tr>
<tr>
<td>U of C</td>
<td>Dr S Roy</td>
<td>Differentiated instruction and learning French as a second language in a primary school: a case study</td>
</tr>
<tr>
<td>U of C</td>
<td>Dr D Watt</td>
<td>Effective programs for high school ESL learners</td>
</tr>
<tr>
<td>U of A</td>
<td>Dr A Grace</td>
<td>Welfare and work issues for lesbian, gay, bisexual and transgender teachers in Canadian schools: legal, legislative and educational policy perspectives and their implications for teacher professional practice</td>
</tr>
<tr>
<td>U of A</td>
<td>Dr B Gustafson</td>
<td>Design technology planning in an elementary classroom</td>
</tr>
</tbody>
</table>

For further information on AACES and to obtain an application form, contact Doreen Link, Secretary, Alberta Advisory Committee for Educational Studies c/o The Alberta Teachers' Association 3016 5 Avenue NE Suite 106, Calgary, AB T2A 6K4 Telephone 265-2672 or 1-800-332-1280 www.teachers.ab.ca/links/aaces.html