



Indigenous Science Network Bulletin

<http://members.ozemail.com.au/~mmichie/network.html>

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Tiwi designs by Jennifer Coombs, Melville Island, NT

NEWS and VIEWS

Place, place knowledge, and sense of place as themes
for cross-cultural science curriculum

Steven Semken, Arizona State University

Teaching and learning in the Earth, environmental, and
ecological sciences occurs in and about *places*, which are
localities imbued with meaning through human experience
[Relph 1976, Tuan 1977].

Grand Canyon, Arizona, USA

This is best described as a photoessay on place-based Earth Science teaching and the integration of Native knowledge: a pdf created from a slide presentation [Steven Semken](#) gave a few months ago. It presents an outline of the topic with citations that readers can look up for more detailed information. It also contains plenty of nice images. To download the pdf, click [here](#).

Dream Shield: helping Indigenous Australians protect their intellectual property

On 11 November 2010, Innovation Minister, Senator Kim Carr, launched the Dream Shield project for IP Australia. IP Australia is the government agency that manages registrations for patents (for inventions), trade marks and designs.

View at

http://www.copyright.com.au/Latest_News/Dream_Shield_helping_Indigenous_Australians_protect.aspx.

Passing on knowledge

A week long project at the NT Museum sees culture sharing between old and new generations. Read this item at <http://www.abc.net.au/local/stories/2011/01/21/3118619.htm?site=darwin>.

INDIGENOUS ASTRONOMY

Wergaia reclaim cultural astronomy

John Morieson

At the Cultural Day to celebrate the first five years of the Barengi Gadjin Land Council, John Morieson was invited to present his research into the long-lost astronomy of the Boorong Clan. This clan, the northernmost clan of the Wergaia speaking people, lived around Lake Tyrrell and had the reputation of being the best astronomers of all the clans.

John used a poster he prepared for a cultural astronomy workshop held at the Australian Institute for Aboriginal and Torres Strait Islander Studies in Canberra in 2009.

Cultural Heritage Coordinator for the BGLC, Kerry Hunt, has asked John to prepare a year-long schedule on the astronomy of the Boorong as part of her program for cultural renewal.

Other workshops on the day were on Wergaia language, presented by Richard Kennedy, Chair of the BGLC Board; and boomerang painting, organised by the Projects Officer for the BGLC, Raymond Marks.

RESOURCES

International History, Philosophy, and Science Teaching Group

The December and January IHPST newsletters are now available on the web at: <http://ihpst.net/newsletters/>.
December newsletter contents are:

1. President's Column: Formal Membership of IHPST now Available
2. Science & Education Volume 19 (2010) Contents
3. Science & Education Journal Report
4. Journal Special Issue: Philosophical Considerations in the Teaching of Biology
5. Journal Special Issue: Philosophical Considerations in the Teaching of Chemistry
6. Journal Special Issue: Mario Bunge's Systematic Philosophy: An Evaluation
7. Journal Special Issue: Philosophy of Commercialized / Commodified Science

8. Eleventh International IHPST Conference, Thessaloniki July 1-5, 2011
9. DHST Teaching Commission Symposium: 'The History of Science Textbooks', during IHPST Thessaloniki Conference
10. History of Science Society, Joseph H. Hazen Education Prize 2010
11. Ernst von Glasersfeld (1917-2010)
12. IHPST Project and Final Conference in Kaiserslautern, Germany
13. Science Studies and Science Education: International Workshop on Science Teaching and History & Philosophy of Science, 23-25 June 2011, Aarhus
14. European Philosophy of Science Association, 3rd Conference, Athens, Greece, 5-8 October 2011
15. Society for Philosophy of Science in Practice (SPSP), Third Biennial Conference, June 22-24, 2011, University of Exeter, UK
16. Popularising Nuclear Energy in the Post-War Europe: Joseph Rotblat and the Atom Train
17. Notre Dame University, Graduate Programme in Theology and Science
18. 14th Congress of Logic, Methodology and Philosophy of Science, Nancy, France, July 19-26, 2011
19. Book Reviews
 - (i) Susan Carey (2009) *The Origin of Concepts*. Oxford University Press [Marcus P. Adams]
 - (ii) Sibel Erduran & María Pilar Jiménez-Aleixandre (2008) *Argumentation in Science Education: Perspectives from Classroom-Based Research*. Springer [Agustín Adúriz-Bravo]
20. *Metatheoria*. Journal of Philosophy and History of Science
21. Current Research
22. Publications for Sale
23. Coming Conferences
24. IHPST Graduate Students
25. IHPST Council (2009-11)
26. IHPST Email List
27. Newsletter Items

The January newsletter contents are as follows.

1. President's Column: IHPST Council Election
2. *Science & Education* Volume 20 Number 1
3. *Science & Education* Journal Report
4. Journal Special Issue: Philosophical Considerations in the Teaching of Chemistry
5. Journal Special Issue: Genetics and Society: Educating Scientifically Literate Citizens
6. Journal Special Issue: Mario Bunge's Systematic Philosophy: An Evaluation
7. Journal Special Issue: Philosophy of Commercialized / Commodified Science
8. Eleventh International IHPST Conference, Thessaloniki July 1-5, 2011
9. DHST Teaching Commission Symposium: 'The History of Science Textbooks', (during IHPST Thessaloniki Conference)
10. David Layton (1925-2010)
11. Ernst von Glasersfeld (1917-2010)
12. Science, Philosophy and Politics: The 1949 Bulgarian Biological Conference (4-8 April 1949, Sofia)
13. Science Studies and Science Education: International Workshop on Science Teaching and History & Philosophy of Science, 23-25 June 2011, Aarhus
14. European Philosophy of Science Association, 3rd Conference, Athens, Greece, 5-8 October 2011
15. Society for Philosophy of Science in Practice (SPSP), Third Biennial Conference, June 22-24, 2011, University of Exeter, UK
16. 14th Congress of Logic, Methodology and Philosophy of Science, Nancy, France, July 19-26, 2011
17. Proposal for a Joint Teaching Commission of the DHST and DLMPs
18. Book Reviews
 - (i) Derek Hodson (2009) *Teaching and Learning about Science: Language, Theories, Methods, History, Traditions and Values*. Sense Publishers [John Settlage]

- (ii) Robert E. Kohler (2006) *All Creatures: Naturalists, Collectors, and Biodiversity, 1850-1950*. Princeton University Press [Paul Lawrence Farber]
19. Metatheoria. *Journal of Philosophy and History of Science*
20. Current Research
21. Publications for Sale
22. Coming Conferences
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ICASE January Newsletter

You can find ICASE (The International Council of Associations for Science Education) January Newsletter at following web link: http://www.icasenline.net/newsletter/icasen_01_2011.pdf The contents of newsletter include:

- ICASE 2011 and beyond
- ICASE News
- Science Activities
- Supporting the ICASE Declaration
- SAFE SCI: Be Protected
- Teaching Scientific Thinking
- Calendar of Events
- ICASE Executive Committee 2011-2013
- Call for Papers

Necatibey Faculty of Education, Electronic Journal of Science and Mathematics Education

The latest issue of Necatibey Faculty of Education, Electronic Journal of Science and Mathematics Education (NFE-EJSME) is now available. The papers can be accessed at the following link:

http://www.nef.balikesir.edu.tr/~dergi/index.php?option=com_makale_arsiv&sayi_id=9&lang=en

Dr. Hüseyin KUCUKOZER
Co-Editor of NEF-EFMED

Centre for Aboriginal Studies, Curtin University of Technology (Australia) Bachelor of Education Regional and Remote-Primary Course code: 313255

This degree provides a culturally appropriate pathway for Indigenous students who wish to teach in the primary education sector. The degree, with a focus on regional and remote teaching and learning, provides quality teacher training in curriculum planning and professional teaching practice. Practical classroom experience forms a significant part of the degree. Delivery through the Centre for Aboriginal Studies in block release mode considers family and cultural responsibilities, and allows students working in schools to continue to be employed whilst studying.

For more information contact P.RIDLEY@curtin.edu.au.

Recent books from Sense Publishers

GROWING UP INDIGENOUS: *Developing Effective Pedagogy for Education and Development*

Raymond Nichol, *La Trobe University, Australia*

This is a fascinating account of traditional socialisation and Indigenous forms of learning in Australia and Melanesia. It draws from rich ethnographic, historical and educational material.

There has never been a greater need for a socially and historically informed, yet critical account, of the mismatch between traditional ways, realities of life in Indigenous communities, villages and enclaves, and the forms of education provided in schools.

Raymond Nichol, a specialist in Indigenous education and pedagogy, surveys the links, too often disparities, between ethnographic detail of life 'on the ground' and the schooling provided by nation states in this vast region. Most importantly, he explores and suggests ways community developers and educators, Indigenous and non-Indigenous, may work to bridge the gaps in social rights, educational and economic development. This is relevant for all Indigenous communities, their survival and development.

Many vexed issues are discussed, such as race, ethnicity, identity, discrimination, self-determination, development, and relevant, effective pedagogical, learning and schooling strategies.

Dr Raymond Nichol is Head of Social Science Education and Co-ordinator International in the Faculty of Education, La Trobe University, Bendigo, Victoria, Australia. He is an anthropologist and teacher educator. His many publications in the fields of education and social science include *Socialization, Land, and Citizenship among Aboriginal Australians: Reconciling Indigenous and Western Forms of Education*, Lewiston, NY: Edward Mellen Press, 2005. This is a follow-up, comparative extension and update to that book.

[Free Preview](#)

FAILURE TO THRIVE IN CONSTRUCTIVISM: *A Cross-Cultural Malady*

Marilyn Dahl, *Paulo and Nita Freire International Project for Critical Pedagogy at McGill University, Montreal, Quebec, Canada*

Western educators constantly look for ways to make the process of learning more meaningful, to kindle the spark that initiates a lifelong pursuit of knowledge and creative innovation. Recent theories have favored the development of critical learning skills over the acquisition of facts. However, these theories are rooted in Western democratic and egalitarian assumptions, some of which exist in no other culture on earth. Although it seems logical that any learner, set at liberty to explore the world, would naturally develop the ability to think critically and analytically, it is important to point out that Western logic is not universal, and what seems natural is, in fact, a product of the Western independence-oriented worldview.

This book examines the consequences of taking a full-blown constructivist approach into Arabic tertiary education, and uncovers some interesting hidden factors that prevent cognitive progress in this environment. This seemingly natural approach to learning does not, in fact, come naturally, but requires careful preparation to enable learners to accept cognitive experiences that may be culturally uncomfortable.

The intent of this book is to encourage educators and teachers-in-training to examine the limitations of Eurocentric educational theory and adapt their approach for each individual in a cross-cultural classroom.

Transgressions: Cultural Studies and Education Volume 62

[Free Preview](#)

DIFFERING WORLDVIEWS IN HIGHER EDUCATION: *Two Scholars Argue Cooperatively about Justice Education*

Four Arrows, *Fielding Graduate University, Santa Barbara, USA*

Walter Block, *Loyola University, New Orleans, USA*

Two noted professors on opposite sides of the cultural wars come together and engage in "cooperative argumentation." One, a "Jewish, atheist libertarian" and the other a "mixed blood American Indian" bring to the table two radically different worldviews to bear on the role of colleges and universities in studying social and ecological justice. The result is an entertaining and enlightening journey that reveals surprising connections and previously misunderstood rationales that may be at the root of a world too polarized to function sanely.

"How refreshing to read a debate between a libertarian and a progressive where the participants are not trying to one-up each other or score debating points but simply trying to present an intellectually rigorous case for their philosophy, respectfully debate their differences, learn from each other, and hopefully find common ground." –Dr. Ron Paul, (R) Congressman, 14th District, TX

[Free Preview](#)

Recent paper

Mariana G Hewson, Meshach B Ogunniyi (online). Argumentation-teaching as a method to introduce indigenous knowledge into science classrooms: opportunities and challenges. *Cultural Studies of Science Education*.

Abstract An innovative school science curriculum in South Africa requires the inclusion of African societal/cultural knowledge, such as indigenous knowledge (IK). The main project involves introducing argumentation to accomplish this requirement. We used a focus group plus critical incident technique to ascertain nine teachers' understandings of argumentation and IK, their perceptions of how argumentation helps in teaching IK, examples of how argumentation-teaching had (or had not) worked in their classrooms, and their suggestions. Our results show that the teachers accepted argumentation as a viable approach to teach science and introduce IK into their classrooms.

CONFERENCES

Research Based Undergraduate Science Teaching: Investigating Reform in Classrooms

19-21 June 2011

Bryant Conference Center, University of Alabama Campus, Tuscaloosa, AL

The conference will focus on reforms in teaching undergraduate science and their short- and long-term impact on student outcomes. This highly interactive meeting combines presentations with time to interact and network with colleagues. We encourage you to plan to attend and participate. Register today at <http://nseus.org>.

If you currently are involved in research, or have future plans to conduct research in undergraduate science teaching, learning, and learning outcomes, consider submitting a proposal for the NSEUS 2011 Conference. We encourage you to send us your proposal abstract for consideration, for an individual research, action research paper, or larger group session and also to volunteer as a chair or discussant. Papers will be considered for publication as a chapter in the annual 2012 research volume *Research in Science Education (RISE)*, Information Age Publishers.

Information regarding the conference or submitting a proposal for presentation is available on the NSEUS web site <http://nseus.org>. A limited number of travel expense stipends are available to partially cover conference expenses for faculty presenting research papers related to the theme of the conference.

For more information contact Dennis Sunal at dwsunal@bama.ua.edu

1st World Conference on New Trends in Science Education (WCNTSE)

Kusadasi-Turkey

19-23 September 2011

The Institute of Educational Sciences, Dokuz Eylul University is proud to announce the first international conference on science education; 1st World Conference on New Trends in Science Education (WCNTSE). The forthcoming WCNTSE will take place in Kusadasi-Turkey on 19 - 23 September 2011.

WCNTSE invites proposals to challenge conventional practices and contribute to new and challenging ideas about the future of science education. Science education has steadily gained importance for the past century and it is being expected to develop more and more in the forthcoming years. Researches show that traditional approaches are obsolete and more interactive approaches are suitable for science education. Accordingly, the main goal of 1st WCNTSE is to present and discuss new trends in education and to promote collaboration, discussion and sharing of knowledge, experience and expertise on emerging trends in science education. Therefore, the main theme of WCNTSE will be new approaches and trends in science education. Proposals for oral presentations, workshops, and poster presentations are invited on the following (but not limited to):

- New trends and Approaches in Science Education
- Learning and Teaching in Science Education
- Nature of Science and Scientific literacy
- Assessment and Evaluation in Science education
- Pre-service and In-service Science Teachers' Education
- Environmental Education
- Informal-Outdoor Education
- Science Curriculum and Evaluation
- ICT in Science Education
- Other Topics about Science Education

The official language of the conference is English. Papers in all fields of undergraduate and graduate science education research are invited.

We hope that this event will provide an occasion for us to consider issues and share strategies and perspectives from a wide variety of contexts and that the friendships made and insights gained at the conference will endure long beyond your participation and be further enriched by new contacts in years to come, leading to better understanding and appreciation of our profession.

The conference web site is now open and we will be posting new information in due time about the developments. Please do not forget to check the web site at <http://www.wcntse.org/>

We, on behalf of Dokuz Eylul University, are looking forward to seeing you all in Kusadasi in September 2011.

Fourth International Conference on Science and Mathematics Education(CoSMEd)

15-17 November 2011

Penang, Malaysia

Rationale

One of the issues that confronts educators today is the concern of educating young minds to meet the challenges in a globalizing world. Many countries are faced with the challenge of preparing citizens who will be able to address global, national and local problems. In this regard, science and mathematics knowledge has become essential as they empower people to usefully apply their knowledge more effectively to solve problems. There is however a need to educate the young so that they can fully utilise the power of science and mathematics. On the one hand, it is our hope to see more children being scientifically and mathematically literate, yet on the contrary we often see children become disinterested in science and mathematics through the way it is taught in schools. This Conference thus aims to bring educators and researchers together to discuss and address issues in improving science and mathematics literacy, developing children's ability to think scientifically and apply science and mathematical knowledge for personal as well as for the benefit of the community.

Objectives

The objectives of this conference are

1. To provide a forum to review issues, exchange of ideas and share experiences especially on the development of scientific and mathematical literacy at all levels.
2. To review and recognise the integration of ICT to develop science and mathematics literacy.
3. To review and enhance continuous professional development as a means to sustain the development of science and mathematics literacy.
4. To encourage the sharing of knowledge, skills and experiences of experts working on new strategies to sustain science and mathematics literacy reforms in teaching and assessment.
5. To strengthen professional networking among science and mathematics educators both locally and globally.
6. To maintain professional contacts to enhance cooperation among a consortium of international organisations and educational institutions to facilitate greater dissemination and exchange of expertise at an international level.

For more information visit <http://www.recsam.edu.my/cosmed/index.html>.

2nd International Conference on Popular Culture and Education

7-10 December, 2011

Centre for Popular Culture and Education

Hong Kong Institute of Education

You are invited to join us at the Second International Conference on Popular Culture and Education, organised by the Centre for Popular Culture and Education, at the Hong Kong Institute of Education!

Following the success of our first conference on Popular Culture and Education in December 2008, we have decided to organize a second conference in December 2011.

This conference will bring together researchers from a variety of areas to focus on the implications of popular culture for educational practices and youth development. Papers on all aspects of popular culture and education are welcomed. (Call for papers deadline: 30 June 2011)

Conference website: <http://home.ied.edu.hk/~hkpop/conference2011.html>

Seventh International Conference on Science, Mathematics & Technology Education

Transformations through Science, Mathematics and Technology Education: Towards an Innovative and Sustainable Society

12-15 February 2012

Muscat, Oman

Jointly organised by the Science and Mathematics Education Centre, Curtin University, Australia, and the College of Education, Sultan Qaboos University, Oman

Following the successful conferences in Vietnam, South Africa, Canada, Thailand and most recently in Taiwan, this conference will provide another intellectually challenging and culturally enriching experience for science, mathematics and technology teachers, teacher educators, researchers, and administrators from all education levels from around the world.

The conference will include keynote addresses and papers. Papers may be presented either in Arabic or English and participants will be invited to submit their presentations for consideration for inclusion in the conference proceedings. A social and sightseeing program will be organised in conjunction with the conference.

The Sultanate of Oman provides a unique environment with its diversity of landscape from a largely untouched coastline, some of the oldest mountains in the world, wide pristine deserts to the burgeoning capital Muscat, with its forts, palaces and old city wall. It provides a living example where development and tradition can co-exist hand in hand. In a country renowned for its security, stability and the spirit of tolerance of its people, visitors are guaranteed to hear many *Ahlan wa Sahlan* (you are welcomed) from the ever smiling locals.

For further information please contact:

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CALENDAR OF EVENTS

This is mostly a summary of upcoming conferences. More details may have been given in this or previous bulletins as shown. A web-based contact is usually included. Inclusion of conferences in this list is not to be read as an endorsement of the conference.

2011

April 2011

3-6 April: National Association for Research in Science Teaching (NARST) annual conference, Orlando FA, USA (<http://www.narst.org/annualconference/2011conference.cfm>)

8-12 April: American Educational Research Association (AERA) 2011 Annual Meeting - New Orleans, Louisiana. Theme: *Inciting the Social Imagination: Education Research for the Public Good*. (<http://www.aera.net/>) (Aug10)

June 2011

19 – 21 June: Research Based Undergraduate Science Teaching: Investigating Reform in Classrooms, Bryant Conference Center, University of Alabama Campus, Tuscaloosa, AL (<http://nseus.org>) (Feb11)

29 June – 2 July: Australasian Science Education Research Association (ASERA) annual conference, Adelaide SA. (<http://asera.org.au/index.php/annualconf/2011-annual-conference>) (Dec10)

July 2011

10-13 July: Conference of the Australian Science Teachers Association (CONASTA60), Darwin NT. Science at the Top. (http://www.conasta.edu.au/conasta_60_information.html)

September 2011

5-9 September: ESERA 2011 Conference, Lyon, Centre de Congrès, FRANCE. Science learning and Citizenship. (<http://www.esera2011.fr/>). (Dec10)

19-23 September: 1st World Conference on New Trends in Science Education (WCNTSE), Kusadasi-Turkey (<http://www.wcntse.org/>) (Feb11)

November 2011

15-17 November: Fourth International Conference on Science and Mathematics Education(CoSMEd) 2011, Penang, Malaysia (<http://www.recsam.edu.my/cosmed/index.html>) (Feb11)

December 2011

7-10 December: 2nd INTERNATIONAL CONFERENCE ON POPULAR CULTURE AND EDUCATION, Centre for Popular Culture and Education, Hong Kong Institute of Education, Conference website: <http://home.ied.edu.hk/~hkpop/conference2011.html> (Feb11)

2012

February 2012

12-15 February: Seventh International Conference on Science, Mathematics & Technology Education. Transformations through Science, Mathematics and Technology Education: Towards an Innovative and Sustainable Society. Muscat, Oman (<http://smec.curtin.edu.au/conference.cfm>) (Feb11)

March 2012

24-28 March: National Association for Research in Science Teaching (NARST) annual conference, Indianapolis IN, USA (<http://narst.org/>)