



## **Scholarly communications, EOS-SEI, 2007 - 2012**

This list includes only works carried out as part of the CWSEI (<http://www.cwsei.ubc.ca/>) within the Dep't of Earth and Ocean Sciences at UBC.

### **Publications**

1. DesLauriers, Louis, Sara Harris, Erin Lane, and Carl Wieman, "Transforming the lowest performing students: an intervention that worked", Submitted to Journal of College Science Teaching, 2011.
2. Dohaney, J., E. Brogt, and B. Kennedy, "Successful Curriculum Development and Evaluation of Group Work in an Introductory Mineralogy Laboratory", Journal of Geoscience Education, in press, 2011.
3. Jones, F., S. Harris. "Benefits and Drawbacks of Using Multiple Instructors to Teach Single Courses", under revision for re-submission to "College Teaching", 2011.
4. Jones, F. "Survey of Hiring Practices in Geoscience Industries, 2010", cIRcle: UBC's Digital Repository: Scientia Silvana Extension Series. Available at: <https://circle.ubc.ca/handle/2429/37246>, 2010. (Contributors: K. Ko, J. Caulkins, D. Tompkins, S. Harris.)
5. Jolley, Alison, Erin Lane, Ben Kennedy, and Tom-Pierre Frappé-Sénéclauze, SPESS: A New Instrument for Measuring Student Perceptions in Earth and Ocean Science, Journal of Geoscience Education 2012 60:1, 83-91 (<http://nagt-igee.org/toc/igee/60/1>)
6. Lane, E. S. and Harris, S. "A New Tool for Measuring Student Engagement in Large University Classes", under revision based on reviews from International Journal of Teaching and Learning in Higher Education, 2011.

### **Undergraduate honors geoscience theses**

1. Jolley, Alison; *Measuring Knowledge & Confidence of Landscape Identification & Formation*, 2010, <https://circle.ubc.ca/handle/2429/23321>
2. Rhajiak, Jamil; *Understanding Geological Time: A Proposed Assessment Mechanism for Beginner and Advanced Geology Students at UBC*, 2009, <https://circle.ubc.ca/handle/2429/6655>
3. Wong, Carrie; *Performance on the Geologic Spatial Visualization Survey: A Comparison Between Junior and Senior Undergraduate Students*, 2011.

### **Accepted for presentation at GSA, October 2011**

1. Gilley, Brett, "What Do You See? Using Video For Pre/Post Assessment Of Interactive Engagement", [http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_194488.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_194488.htm)
2. Harris, Sara, "Effective Interventions: Helping Low Performers Learn How To Learn", [http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_195168.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_195168.htm)
3. Harris, Sara and Gilley, Brett, " 'Invention' Activities In An Introductory Lab: Minerals, Rocks, Biodiversity, And Earthquakes", [http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_195035.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_195035.htm)
4. Jolley, Alison, Jones, Francis, Harris, Sara, and Rhajiak, Jamil, "Correlating Knowledge Of Landscape Formation Timescales And Geologic Time Using A New Validated Concept Test", [http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_195482.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_195482.htm)
5. Jones, Francis, Johnson, Catherine, "Assessing The Impacts Of A Highly Interactive Planetary Science Elective Course For Senior Science Students", [http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_195046.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_195046.htm)
6. Petcovic, Heather L., Caulkins, Joshua L., and Stokes, Alison, "Geologists' Perceptions Of The Value Of Field Camp", [http://gsa.confex.com/gsa/2011AM/finalprogram/abstract\\_196672.htm](http://gsa.confex.com/gsa/2011AM/finalprogram/abstract_196672.htm)

### **Submitted for presentation at AGU, December 2011**

7. Harris, Sara., Stephen V Taylor, Jane E Schoonmaker, Erin Lane, Roger Francois, Philip Austin, "Measuring Student Improvement in Lower- and Upper-Level University Climate Science Courses".

### **Presentations and posters at prior conferences**

1. Adams. W., B. Gilley, and C. Wieman, "Development of a Faculty Perceptions Survey" American Association of Physics Teachers Winter Meeting, Jacksonville Florida (poster), 2011.
2. Dohaney, J., E. Brogt, and B. Kennedy, "Successful Group Work in an Introductory Mineralogy Lab Setting", Geological Society of America Abstracts with Programs, Vol. 41, No. 7, p. 92, 2009, [http://gsa.confex.com/gsa/2009AM/finalprogram/abstract\\_161496.htm](http://gsa.confex.com/gsa/2009AM/finalprogram/abstract_161496.htm) .
3. Gilley, B., and S. Harris. "Group Quizzes as a Learning Experience in an Introductory Lab". Geological Society of America Abstracts with Programs, Vol. 42, No. 5, p. 588, 2010. [http://gsa.confex.com/gsa/2010AM/finalprogram/abstract\\_182211.htm](http://gsa.confex.com/gsa/2010AM/finalprogram/abstract_182211.htm)



4. Gilley, B., S. Harris, G. Spiegelman, J. Taylor, S. Wolfman, B. Yu. "Changing the Culture of Science Education at a Major Research University". Proceedings of the 34th International Conference on Improving University Teaching. Vancouver, BC, 2009.
5. Gilley, B., S. Harris, J. Taylor, K. Smith, B. Yu, S. Wolfman, "Expert Panel: Changing the Culture of Science Education, Improving University Teaching (IUT) 34th International Conference, Vancouver, BC, Canada, 2009.
6. Gilley, B. and S. Harris, "Optimization of, and Measuring Student Gains in, An Introductory Geoscience lab Course", Joint Annual Meeting GSA / SSSA-ASA-CSSA / GCAGS-GCSSEPM (poster), 2008, <http://a-c-s.confex.com/crops/2008am/webprogram/Paper47438.html>
7. Harris, S.E., K. Smet, F. Jones, and D. Steyn. "Can Critical Incident Questionnaires Help Improve Metacognitive Skills?" Geological Society of America Abstracts with Programs, Vol. 41, No. 7, p. 602, 2009, [http://gsa.confex.com/gsa/2009AM/finalprogram/abstract\\_165586.htm](http://gsa.confex.com/gsa/2009AM/finalprogram/abstract_165586.htm)
8. Jolley, A., E. Lane, "A New Tool for Investigating Undergraduate Attitudes about Earth Science", Geological Society of America Abstracts with Programs, Vol. 41, No. 7, p. 94 (poster), 2009. [http://gsa.confex.com/gsa/2009AM/finalprogram/abstract\\_164998.htm](http://gsa.confex.com/gsa/2009AM/finalprogram/abstract_164998.htm)
9. Jolley, A., "Landscape Identification and Formation: the development of a test to measure student knowledge and confidence", Western Inter-University Geosciences Conference, Saskatoon, SK (poster), 2009.
10. Jones, F., B. Kennedy, R. Stull, S. Harris, B. Gilley, T. Frappe and C. Wieman, "Maximizing student learning in an introductory level Natural Disasters Class", National Association of Geoscience Teachers – Pacific Northwest Section Annual Meeting, Yakima, Washington (poster), 2008.
11. Jones, F., "Teaching, learning and assessing scientific skills early in an undergraduate degree", Western Conference on Science Education, U. Western Ontario, July 6-8, 2011. <http://www.wcse.ca/wp-content/slides/d2a.pdf>
12. Jones, F., M. Jellinek, M. G. Bostock, "Promoting & Measuring Scientific Reasoning Expertise of 2nd Year Students", American Geophysical Union Fall Meeting (poster), 2010.
13. Jones, F., "Design and Use of Midterm and End of Term Student Surveys to Improve Learning", Proceedings of the 34th International Conference on Improving University Teaching. Vancouver, BC, 2009.
14. Jones, F., S. Harris, C. Wieman, B. Gilley, E. Lane, J. Caulkins, "Emerging Geoscience Education Research (GER) at the University of British Columbia", American Geophysical Union Fall Meeting (poster), 2009.
15. Jones, F., S. Harris and D. Steyn, "Improving Metacognitive Skills of 2nd year Environmental Science Students: What to Measure?", presented at the 2 day workshop "The Role of Metacognition in Teaching Geoscience", NAGT (National Association of Geoscience Teachers), and NSF (National Science Foundation) at Carleton College, Northfield Minnesota, 2009.
16. Kennedy, B., B. Gilley, and T. Frappe, "Does Earth and Ocean Sciences Change How Students See the World? Assessing How Earth and Ocean Sciences Courses Affect Student Attitudes". Joint Annual Meeting GSA / SSSA-ASA-CSSA / GCAGS-GCSSEPM, Houston, 2008. <http://a-c-s.confex.com/crops/2008am/webprogram/Paper47387.html>
17. Lane, E., and S. Harris. "Quantifying student behavioral engagement based on teaching practices in a large class". Proceedings of the 34th International Conference on Improving University Teaching. Vancouver, BC, 2009.
18. Lane, E. S., S. Harris "Quantifying student behavioral engagement based on teaching practices in a large class", Improving University Teaching (IUT) 34th International Conference, Vancouver, BC, Canada (poster), 2009.
19. Lane, E. S., "Clickers: can a simple technology increase student engagement in the classroom?" International Conference on Information Communication Technologies in Education (ICICTE), Corfu, Greece (poster), 2009.
20. Taylor, R. and B. Gilley, "Teaching and Learning in the Earth and Ocean Sciences: Adding Geoscience Education to the Graduate Student Curriculum at UBC", National Association of Geoscience teachers (Pacific Northwest Section) Annual General Meeting (poster), 2010
21. Taylor, R. and B. Gilley, "Using Experiential Learning to Develop Teaching (and Learning) Skills: Training Graduate Students to Teach Earth and Ocean Sciences", Society of Teaching and Learning in Higher Education, Toronto (poster), 2010
22. Yu, B., and B. Gilley, "Benefits of Invention Activities for Cross Cultural Students", International Conference of Education, Research and Innovation, Madrid Spain, 2009.



**Workshops which EOS-SEI people have developed and/or facilitated or co-facilitated**

1. *Targeting Challenging Geoscience Concepts with In-Class Activities*. Workshop at the BC Earth Science Articulation Meeting, 12 May 2011.
2. *Bringing the bottom up: An intervention that worked*. Science Supper Series, UBC, 20 January 2011.
3. *Group Exams: Learning Together?* Douglas College, New Westminster, October 2010.
4. *Using clickers in large lectures*, Simon Fraser University, Burnaby, November 2010.
5. *Clickers in the Classroom*. UBC Applied Science 2nd Learning Conference, 15 May 2009.
6. *Team Based Learning in Large Classes*, UBC Applied Science 2nd Learning Conference, 15 May 2009.
7. *How to use clickers effectively in your classroom*. National Association of Geoscience Teachers, Pacific Northwest Section, Annual Meeting, Vancouver, BC, Canada, 2009.
8. *Clickers: How to Effectively Use a Simple Technology To Increase Student Engagement In Your Class*. International Conference on Information Communication Technologies in Education (ICICTE), Corfu, Greece, 2009.
9. *Closing the loop: connecting learning goals to assessment*, workshop for the 34<sup>th</sup> annual Improving University Teaching conference, Simon Fraser University, July 2009.
10. TAG Institute, May 2009: Closing the Loop: Connecting learning goals to assessment
11. At the 1st International Instructional Skills Workshop Conference, Doha, Qatar, April 2009
  - Opening remarks for the International advisory council
  - ISW Theme Sessions – Lesson Planning
  - ISW Theme Sessions – Learning
  - Classroom Assessment Techniques
12. *Learning Goals* for EOS faculty, January 2008
13. *Learning Goals Workshop*, at the Goldschmidt Conference of the Geochemical Society and the European Association of Geochemistry, UBC, July 2008.
14. *Learning Goals Workshop*, at the annual Geology Articulation, Nanaimo, May 2008
15. *Bringing Learning Goals to Fruition*, UBC Celebrate Learning Week, Oct. 2, 2008.
16. *Crafting Useful Learning Goals*, Faculty of Science Skylight Supper Series, Oct. 23, 2008.
17. *Getting Started with clickers in the classroom*. Seminar for the UBC Psychology Department. 7 Nov 2008.
18. *Keeping the feedback loop active: Critical incidents for learning*. UBC Celebrate Learning Week event, 1 Oct 2008.
19. *Using the "Critical Incident Questionnaire" in ENVR 200*. ISoTL Network Event: Practice in Progress, Center for Teaching and Academic Growth, UBC. Vancouver, BC, April 2008.
20. *Getting started with clickers in the classroom*. Office of Learning Technology Reading Week e-learning Institute, UBC. Vancouver, BC, Feb 2008.
21. *The Pedagogy of Clickers*. Seminar in association with Team-based Learning workshop, UBC, Vancouver, BC, May 2007.