

Curriculum Vitae

Tim Weston
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Current Status

1999 – Present: Research Associate and evaluator for Alliance for Technology Learning and Society, School of Engineering (ATLAS), University of Colorado.

1995 – Present: Contract evaluator and analyst for numerous non-profit, educational, governmental and scientific organizations.

Publications

Weston, T., Laursen, S. (2014). The Undergraduate Research Student Self Assessment: Development, Use and Validation. Submitted to CBE Journal of Life Sciences Education June 2014, under review.

Laursen, S. L., Hassi, M.-L., Kogan, M., & Weston, T. J. (2014). Benefits for women and men of inquiry-based learning in college mathematics: A multi-institution study. *Journal of Research in Mathematics Education*, 45(4), 406-418.

Lisa Corwin Auchincloss, Sandra L. Laursen, Janet L. Branchaw, Kevin Eagan, Mark Graham, David I. Hanauer, Gwendolyn Lawrie, Colleen M. McLinn, Nancy Pelaez, Susan Rowland, Marcy Towns, Nancy M. Trautmann, Pratibha Varma-Nelson, Timothy J. Weston, and Erin L. Dolan. Assessment of Course-Based Undergraduate Research Experiences: A Meeting Report. *CBE Life Sciences Education* March 3, 2014.

Laursen, S., Weston, T. (2014) Trends in Ph.D. Productivity and Diversity in Top-50 U.S. Chemistry Departments: An Institutional Analysis. *Journal of Chemical Education*. Advance copy: <http://pubs.acs.org/doi/full/10.1021/ed4006997>

Ward, W.; Cole, R., Weston, T. (2013). My science tutor: A conversational multimedia virtual tutor. *Journal of Educational Psychology*, 105(4), 1115-1125.

Thiry, H., Weston, T., Laursen, S., Hunter, A. (2012) The Benefits of Multi-Year Research Experiences: Differences in Novice and Experienced Students' Reported Gains from Undergraduate Research. *CBE Life Science Education*, 11, 260-272.

Ward, W., Cole, R., ... Weston, T. (2011). My Science Tutor: A conversational multimedia tutor for elementary school students. *ACM Trans. Speech Lang. Process.* 7, 4, Article 18 (August 2011), 29 pages.

Thiry, H., Hug, S. & Weston, T.J. (2011). The Computing Alliance of Hispanic-Serving Institutions: Enhancing the success of Hispanic undergraduates in computing disciplines. *Journal of Enrollment Management*, 5(1), 32-56.

Farhar, B, Weston, T, et. al. (2010). Smart Grid City Project: Community Context and Household Perceptions. Proceedings *World Renewable Energy Congress XI 25-30 September 2010, Abu Dhabi, UAE*.

Hunter, A., Weston, T. (2009). URSSA: Evaluating Student Gains from Undergraduate Research in the Sciences. *CUR Quarterly*.

Weston, T., Seymour, E.; Thiry, H. (2007) *Evaluation of Science Education for New Civic Engagements and Responsibilities (SENCER) Project*. Accessed at www.SENCER.net.

Barker, L. J., Snow, E. S., Garvin-Doxas, K. & Weston, T. (2005). Recruiting middle school girls into information technology: Data on girls' perceptions and experiences from a mixed demographic group. In W. Aspray and J. McGrath Cohoon (Eds.) *Women and information technology: Research on the reasons for under-representation*. Cambridge, MA: MIT Press.

Weston, T. J. (2005). Why instructors did – and did not – use instructional software in their undergraduate classrooms. *Innovative Higher Education*, 30(2), p. 99-115.

Weston, T. J. (2004). Formative evaluation for implementation: Evaluating educational technology applications and lessons. *American Journal of Evaluation*, 25(1), 51-64.

Weston, T. J. (2002). The validity of oral presentation in testing. *NAEP Validity Study Panel*, American Institutes for Research. Available at: http://www.air.org/program_areas/assess/assess-set.htm

Weston, T. J., Barker, L. (2002). A profile of student computer use, training and proficiency. *Journal of Computing in Higher Education*, 13(2), 102 – 127.

Weston, T. J., Barker, L. (2001). Designing, implementing, and evaluating web-based learning modules for university students. *Educational Technology*, 41 (4), 15 – 21.

Weston T. J. (1999). Reporting Issues and Strategies for Disabled Students in Large-Scale Assessment. Council or Chief State School Officers. Available at: www.ccsso.org/publications/details.cfm?PublicationID=213

Shepard, L. A., Flexer, R. J., Hiebert, E. H., Marion, S. F., Weston, T. J. (1996). Effects of introducing classroom performance assessments on student learning. *Educational Measurement: Issues and Practice*, 15(3), 7-18.

Evaluations/Development

- Weston, T. (2013 --). *Evaluation of My Science Tutor*. Institute for Educational Sciences.
- Seymour, E., Hunter, A.... Weston, T. (2012 ---). *Talking About Leaving Revisited. (Research project)*. National Science Foundation.
- Weston, T. Laursen, S. (2012 --) *Development of validated instrument for undergraduate professional development*. National Science Foundation.
- Weston, T. , Laursen, S. (2010--). *Evaluation of BIO-REU program*. National Science Foundation.
- Weston, T.; Laursen, S. (2009). *Development of the Biological Sciences Initiative Professional Development Survey*. For Biological Science Initiative at the University of Colorado.
- Weston, T.; Laursen, S.; Hunter, A. (2009 --). *Development of the Undergraduate Research Student Self Assessment*. National Science Foundation.
- Weston, T. (2008--). *Evaluation of TeraGrid Supercomputer Users*. For TeraGrid.
- Weston, T. (2007 --) *Evaluation of FOSS Virtual Tutor*. For Center for Spoken Language Research project sponsored by Institute for Educational Science, National Science Foundation.
- Weston, T., McCaffery, M. (2008---). *Evaluation of NASA –EVE Outreach Mission*, for CIRES Outreach, sponsored by NASA.
- Weston, T., Matheiu, R, Lottridge, S., Carroll, S. (2006 --) *Building Capacity for Course, Program, and Department Evaluation: Improving and Expanding the Student Assessment of Learning Gains Site*. For National Science Foundation.
- Weston, T., Larsen, S. (2006 --) *Mapping the Extent and Character of the Undergraduate Research Experience at Public Research Universities: An Exploratory Study*. For National Science Foundation.
- Weston, T., Barker, L. (2006 -- 2007) *Alliance between Historically Black Universities and Research Universities for Collaborative Education and Research in Computing Disciplines*. For National Science Foundation.
- Weston, T. (2006 ---). *ICARE Initiative*. For Center for Spoken Language Research, Institute of Educational Sciences.
- Weston, T. (2007) *EarthWorks Evaluation*. For CIRES Outreach.
- Weston, T., Barker, L. (2004). *Evaluation of Junior Achievement*. For Junior Achievement of Colorado, Inc.

- Weston, T. J., Seymour, E., Thiry, H.. (2003 - 2007) *Evaluation of Student Education for New Civic Engagement and Responsibilities (SENCER) project*. For American Association of Colleges and Universities, National Science Foundation.
- Weston, T.J., Barker, L., McMillan, R. (2002- 2005). *Evaluation of Collaboration between Dillard University and the University of Colorado*. Carnegie Foundation.
- Weston, T.J. (2002-) *Evaluation of Visible Human Dissector: Visible Human Anatomy project*, National Science Foundation.
- Weston, T. J. (2003 -) *Evaluation of Arthroscopy Simulator: Touch of Life Technologies*.
- Weston, T. J., Snyder, L. (2002- 2006). *Evaluation of Colorado Literacy Tutor*. IERI Grant, National Science Foundation, National Institutes for Health.
- Weston, T. J. (2002-2004). *Evaluation of Explorable Virtual Human: Visible Human Anatomy project*. National Science Foundation.
- Weston, T. J. (2001-). *Evaluation of Technology Arts and Media Certificate program*. For ATLAS.
- Weston, T. J. (2001) *Survey of educational technology use by faculty and students at a large scale university*. For Academic Affairs at CU.
- Weston T. J. (2000) *Evaluation of web-based courses for astronomy*. For Pew Foundation.
- Weston, T. J. (1999). *Analysis of pilot data from Colorado State Assessment Program Alternate Assessment for severely disabled students*. For Colorado Department of Education.
- Weston, T. J., Barker, L. (1999). *Evaluation of online UWRP Writing Course*. For ATLAS.
- Weston, T. J., Barker, L. (1999) *Case Study of ALTEC Foreign Language Modules*. For ATLAS.
- Weston, T. J. (1999) *Survey and Meta-Evaluation of Space Science Professional Development in Colorado*. For NASA
- Weston, T. J. (1998- 2000). *Evaluation of NASA Space Science Institute Science Education Outreach Conferences..* For Space Science Institute., NASA.
- Weston, T. J. (1998). *Evaluation of NASA Cassini Mission Teacher Guide*. For Space Science Institute.
- Weston, T. J. (1996) *Evaluation of NASA IDEA grant: Teaching Astronomy in the Wilderness with Colorado Outward Bound*. For Space Science Institute.
- House, E., Weston, T. J. (1995) *Evaluation of CRESST Research on Teachers*. For CRESST.

Weston, T. J. (1995) *Evaluation of Disability Services at Front Range Community College*. For Front Range Community College.

Kretke, G, Vanchu, M, Weston, T. (1994). *Middle School Evaluation for Boulder Valley School District*. For Boulder Valley School District.

Presentations

Weston, T. (2012). *Using URSSA to evaluate the BIO-REU program*. Invited presentation for BIO-REU group. April 12, 2012. Washington, DC.

Hunter, A.-B., Weston, T. J., Laursen, S., & Thiry, H. L. (2010). URSSA: An online survey measuring student gains from undergraduate research experiences in the sciences. Presented at *Understanding Complex Ecologies in a Changing World*, 2010 Annual Meeting of the American Educational Research Association, Denver, CO, April 30-May 4, 2010.

Weston, T. (2008). *Using the Student Assessment of their Learning Gains for Formative Assessment: Is it Feasible?* Presentation to American Evaluation Association, November 7, 2008: Denver, Colorado.

Becker, L., Van Vuuren, S., Garvin-Doxas, C., Ward, W., Weston, T. (2008). *Inquiry-based Computer Programs for Science Learning: From Pedagogy to Dialog Interaction*, Poster presented at /Annual Meeting of the Institute of Cognitive Science/, Boulder, CO.

Wise, B., Van Vuuren, S., Weston, T., Sessions, L., Snyder, L., Sager, N., Ngampatipatpong, N., Weeks, J., Tuantranonont, J., Tomczyk, T., Golding, G., Struempf T. (2008). *Furthering Adaptivity and Comprehension Assessment in ICARE*, Poster presented at /Annual Meeting of the Institute of Cognitive Science/, Boulder, CO.

Weston, T. *Using the Student Assessment of Learning Gains for Formative and Summative Assessment*. (2008). ABET Assessment Conference, Atlanta, GA, April 26, 2008.

Weston, T., Buhr, S. & Smith, L. (2007) *Authentic Experience and Community: CIRES Earthworks Workshops for Science Teachers*. American Geophysical Union Conference, San Francisco, December, 8, 2007.

Wise, B, Weston, T. (2007) *Adaptation and Comprehension in ICARE*. Institute for Educational Science, Washington, DC, June 7, 2007.

Weston, T (2007) *The Science Education for New Civic Engagements and Responsibilities (SENCER) Project and Science Reform*. American Educational Research Association, Chicago, IL. April 4, 2007.

Weston, T. (2006) *Assessing Student Confidence and Interest in the Science Education for New Civic Engagements (SENCER) Program*. American Evaluation Association, Portland Oregon, November, 2, 2006.

Weston, T (2006). *Examining Teacher Variables in a Large-Scale Institute of Education Sciences Sponsored Technology and Reading Evaluation*. American Evaluation Association, Portland Oregon, November, 2, 2006.

Weston, T. (2006) *ABC's of Classroom Assessment*. SENCER Summer Institute, San Jose, CA, August 4, 2006.

Weston, T. (2006) . *Testing the Science Reform Model with SENCER*. SENCER Summer Institute, San Jose, CA, August 4, 2006.

Weston, T., McMillan, R., Barker, L. (2005). *Partnering for Diversity: A Case Study of Collaboration Between a HBCU and a Large Public University*. Paper presented at the meeting of the American Educational Research Association, Montreal, Canada. April 15, 2005.

Weston, T, McMillan, R., Barker, L. (2004). *Evaluating Implementation and Sustainability for a Collaborative Learning Partnership Between a Large State University and an Historically Black University*. Paper presented at American Evaluation Association Annual Conference. Atlanta, GA, November 5, 2004.

Weston, T. J. (2004). *Using the SENCER SALG for formative assessment and institutional research*. Invited presentation for the National Academy of Science. June 22, 2004, Washington, DC.

Weston, T. J. (2004). *Institutional factors predicting the representation of women in computer science programs*. Presentation for American Educational Research Association, San Diego, CA.

Weston, T. J. (2003). *Using contextual analysis to evaluate educational technology*. Presentation for American Evaluation Association, Reno, NV.

Weston, T. J., Barker, L; McMillan, R (2003). *Evaluating the electronic collaboration between a large state university and an Historically Black University*. Presentation for the American Evaluation Association, Reno, NV.

Weston, T. J. (2002). *An expanded framework for formative evaluation of innovative learning technology*. Paper presentation for American Evaluation Association, Washington, D. C.

Weston, T. J. (2002) *Evaluation of the Visible Human Dissector*. Paper presentation, Visible Human Conference, Keystone, CO.

Weston, T. J. (2002). *The validity of oral accommodation in testing*. Invited paper presentation for NAEP Validity Study Symposium, Galluadet University, Washington, D.C.

Weston, T. J. (2001). *From the medical model to mixed methods: Comparative evaluation of innovative technology*. Paper presentation for Teaching with Technology Conference, Boulder, CO.

Weston, T. J. (2000). *Comparison of online and face-to-face writing class*. Paper presentation for American Educational Research Association, New Orleans, LA.

Weston, T. J. (1999). *The validity of the accommodation of oral presentation in testing*. Paper presentation for American Educational Research Association, Montreal.

Weston, T. J. (1999). *Reporting issues for students with disabilities in large-scale assessments*. Paper presentation for American Educational Research Association, Montreal.

Weston, T. J., Hopkins, K (1998). *Homogeneity of variance assumption and the Levene test*. Paper presentation for American Educational Research Association, San Diego, CA.

Weston T. J., Holwegger, N., (1998). *Comparison of IRT and logistic regression procedures for finding DIF*. Paper presentation for American Educational Research Association, San Diego, CA.

Weston, T. J., Haug, C., Betebenner, D. (1997). *The robustness of the Brown-Forsythe ANOVA F-test*. Paper presentation for the American Educational Research Association, Chicago, Illinois,

Weston, T. J; Marion, S. F. (1996). *Differential item functioning by gender on a large-scale science performance assessment*. Paper presentation for the American Educational Research Association, New York, New York.

Research & Teaching Experience

(2011) Research Methods for ATLAS Ph.D Program, University of Colorado.

(2011) Co-taught Field Methods for IT in the Developing World, ATLAS, University of Colorado.

(2005) *Research Methods* for Graduate School of Public Affairs, UCD.

2001 - 2004: Teaching *Intermediate* and *Basic Statistics* for graduate students. School of Education, University of Colorado, Boulder.

1998 - present: Evaluator for ATLAS initiative. Evaluating use of the educational technology at the University of Colorado.

1998 – present: Various consulting work including statistical analysis for Colorado Department of Education, Council of Chief State School Officers (CCSSO), Smith College, Sopris Curriculum, HHMI-sponsored initiatives, NASA sponsored projects, NSF-sponsored projects, TERAGRID.

May 1999: Successfully defended doctoral dissertation in the Research and Evaluation Methodology (REM) program at the University of Colorado, Boulder School of Education on April 27, 1999. Dissertation: *Investigating the Validity of the Accommodation of Oral Presentation in Testing*.

1997 - 1998: Received grant to write dissertation from NAEP Validity Panel. Conducted dissertation research about testing accommodations with students and classroom teachers in eight school districts.

1996: Research Assistant, Professor Robert Linn. Conducted generalizability analyses on large-scale state assessments.

1995: Research assistant, Professor Ernest House. Conducted evaluation on Center for Research and Evaluation on Standards and Testing (CRESST).

1993-1994: Research assistant, Professor Lorrie Shepard. Conducted research on performance assessments (CRESST).

1995 - 1997: Teaching assistant for professor Kenneth Hopkins. Tutored statistics for graduate students in basic and intermediate statistics classes, and Experimental Design.

1993 - 1995: Conducted research for Boulder Valley Schools office of Research (George Kretke). Co-wrote Middle School Evaluation

Service

HHER Board president
DLESE Advisory Board member.
Undergraduate Research Advisory Board Member

Education

Ph.D, Research and Evaluation Methodology, School of Education, University of Colorado, Boulder.

B.A. in Psychology, 1993. Metropolitan State University, Denver, CO. Minor in Linguistics.

A.A. Sign Language Interpreting, 1988. Front Range Community College, Westminster, CO.

Awards

Received Excellence in Teaching, Outstanding Ph.D. Dissertation Award from School of Education, 1999.