

DOUGLAS WHITAKER

215 Jarvis Hall Science Wing
Menomonie, WI 54751

whitakerdo@uwstout.edu
715-232-1398

EDUCATION

Ph.D. in Mathematics Education [Curriculum & Instruction]

August 2016

University of Florida

Minor: Quantitative Research and Evaluation Methodology

Advisor: Tim Jacobbe

M.Stat. in Statistics, University of Florida

May 2012

B.A. in Statistics, University of Florida

May 2010

B.S. in Mathematics, University of Florida

May 2010

PROFESSIONAL EXPERIENCE

2016 – Present

Assistant Professor of Mathematics/Mathematics Education

Department of Mathematics, Statistics, and Computer Science

University of Wisconsin-Stout, Menomonie, WI

2012 – 2016

Pre-Doctoral Fellow (LOCUS project – NSF DRL-1118168)

School of Teaching and Learning

University of Florida, Gainesville, FL

2010 – 2012

Research and Teaching Assistant

Department of Statistics

University of Florida, Gainesville, FL

PUBLICATIONS

Peer-Reviewed Journal Articles

Note: * denotes equal authorship

Whitaker, D. (2016) Lexical Ambiguities in the Vocabulary of Statistics. *International Journal for Mathematics Teaching and Learning*, 17(3). Retrieved from <http://www.cimt.org.uk/ijmtl/index.php/IJMTL/article/view/37>

- Kennedy-Lewis, B.L., Whitaker, D., & Soutullo, O. (2016). "Maybe that helps folks feel better about what they're doing": Examining contradictions between educator presumptions, student experiences, and outcomes at an alternative school. *Journal of Education for Students Placed at Risk*, 21(4), 230-245. <http://dx.doi.org/10.1080/10824669.2016.1220308>
- *Case, C. & Whitaker, D. (2016). Innocent Until Proven Guilty: Exploring Statistical Power Through Simulations. *Mathematics Teacher*, 109(9), 686-692.
- Halbritter, D.A., Daniels, J.C., Whitaker, D.C., & Huang, L. (2015). Reducing mowing frequency increases floral resource and butterfly abundance in managed roadside margins. *Florida Entomologist*, 98(4), 1081-1092. Retrieved from <http://journals.fcla.edu/flaent/article/view/85018/84167>
- Huggins-Manley, A.C., & Whitaker, D. (2015). SEAsic: R Package for Score Equity Assessment. *Applied Psychological Measurement*, 39(6), 496-497. <http://dx.doi.org/10.1177/0146621615572832>
- Whitaker, D., Foti, S., & Jacobbe, T. (2015). The Levels of Conceptual Understanding in Statistics (LOCUS) Project: Results of the Pilot Study. *Numeracy*, 8(2), Article 3. Retrieved from <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1175&context=numeracy>
- Gaulee, U., Lee, B., Whitaker, D., Ridgewell, N.K., Koro-Ljungberg, M., Watson, D. M., & Butcher, C. (2015). A Constructivist Study of Graduate Students' Health Care Experiences. *The Qualitative Report*, 20(7), 482-497. Retrieved from <http://www.nova.edu/ssss/QR/QR20/4/gaulee7.pdf>
- Whitaker, D.C., Giurcanu, M.C., Young, L.J., Gonzalez, P., Etxeberria, E., Roberts, P., Hendricks, K., & Roman, F. (2014). Starch Content of Citrus Leaves Permits Diagnosis of Huanglongbing in the Warm Season but Not Cool Season. *HortScience*, 49(6), 757-762. Retrieved from http://www.imok.ufl.edu/hlb/database/pdf/17_Whitaker_14.pdf
- Jacobbe, T., Hartlaub, B.A., & Whitaker, D. (2013). Motivation for and Benefits from Attending the AP Statistics Reading. *Journal of Education and Training Studies*, 1(2), 32-37. Retrieved from <http://redfame.com/journal/index.php/jets/article/viewFile/135/108>
- Joseph, A. & Whitaker, D. (2010). Effects of Teaching Suprasegmentals on Second Language Learning and Motivation. *University of Florida Journal of Undergraduate Research*, 12(1), 1-10. Retrieved from <http://ufdc.ufl.edu/UF00091523/00119>

Editor-Reviewed Articles

- Whitaker, D. Navigating the assessment landscape: Reflecting on my experiences. (2017) *Intersection Points: The Newsletter of the Research Council on Mathematical Learning*, 41(3), 9-10. Retrieve from <http://www.rcml-math.org/assets/Newsletter/rcml%20newsletter.january%202017.pdf>
- Whitaker, D. & Jacobbe, T. (2014). Lessons from the LOCUS Assessments (Part 1): Comparing Groups. *Statistics Teacher Network*, (83), 13-15. Retrieved from <http://www.amstat.org/education/stn/pdfs/STN83.pdf>

Conference Proceedings

- Whitaker, D. (2016). The Development of a Professional Statistics Teaching Identity. In Wood, M.B., Turner, E.E., Civil, M., & Eli, J.A. (Eds.), *Proceedings of the 38th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 992-999). Tucson, AZ: The University of Arizona. Retrieved from <http://www.pmena.org/pmenaproceedings/PMENA%2038%202016%20Proceedings.pdf>
- Whitaker, D. (2015). In-Service Statistics Teachers' Professional Identities [Abstract]. In Bartell, T.G., Bieda, K.N., Putnam, R.T., Bradfield, K., & Dominguez, H. (Eds.), *Proceedings of the 37th annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (p. 482). East Lansing, MI: Michigan State University. Retrieved from <http://www.msu.edu/~brakon11/PMENA-2015-PROCEEDINGS-2015-11-04.pdf>
- Jacobbe, T., Case, C., Whitaker, D., & Foti, S. (2014). Establishing the validity of the LOCUS assessments through an evidenced-centered design approach. In K. Makar & R. Gould (Eds.), *Sustainability in statistics education. Proceedings of the Ninth International Conference on Teaching Statistics (ICOTS9, July, 2014), Flagstaff, Arizona*. Voorburg, The Netherlands: International Statistical Institute. Retrieved from http://icots.net/9/proceedings/pdfs/ICOTS9_7C2_JACOBBE.pdf
- Jacobbe, T., Foti, S., Case, C., & Whitaker, D. (2014). High school (ages 14 – 18) students' understanding of statistics. In K. Makar & R. Gould (Eds.), *Sustainability in statistics education. Proceedings of the Ninth International Conference on Teaching Statistics (ICOTS9, July, 2014), Flagstaff, Arizona*. Voorburg, The Netherlands: International Statistical Institute. Retrieved from http://icots.net/9/proceedings/pdfs/ICOTS9_2C2_CASE.pdf

Jacobbe, T., Foti, S., & Whitaker, D. (2014). Middle school (ages 10 – 13) students' understanding of statistics. In K. Makar & R. Gould (Eds.), *Sustainability in statistics education. Proceedings of the Ninth International Conference on Teaching Statistics (ICOTS9, July, 2014), Flagstaff, Arizona*. Voorburg, The Netherlands: International Statistical Institute. Retrieved from http://icots.net/9/proceedings/pdfs/ICOTS9_2B1_FOTI.pdf

Jacobbe, T., Whitaker, D., Case, C., & Foti, S. (2014). The LOCUS assessment at the college level: conceptual understanding in introductory statistics. In K. Makar & R. Gould (Eds.), *Sustainability in statistics education. Proceedings of the Ninth International Conference on Teaching Statistics (ICOTS9, July, 2014), Flagstaff, Arizona*. Voorburg, The Netherlands: International Statistical Institute. Retrieved from http://icots.net/9/proceedings/pdfs/ICOTS9_3C3_WHITAKER.pdf

Whitaker, D., Foti, S., & Jacobbe, T. (2014). Investigation of AP statistics students' understanding of technical terminology with possible lexical ambiguities [Abstract]. In K. Makar & R. Gould (Eds.), *Sustainability in statistics education. Proceedings of the Ninth International Conference on Teaching Statistics (ICOTS9, July, 2014), Flagstaff, Arizona*. Voorburg, The Netherlands: International Statistical Institute. Retrieved from http://icots.net/9/proceedings/pdfs/ICOTS9_3C3_WHITAKER.pdf

Whitaker, D.C., Giurcanu, M.C., Young, L.J., Gonzalez, P., Etxeberria, E., Roberts, P., Hendricks, K., & Roman, F. (2013). Starch Content in Citrus Leaves: A Test with Seasonal Accuracy. In *Proceedings of the Florida State Horticultural Society*, 126, 75-83. Retrieved from http://fshs.org/proceedings-x/2013-vol-126/FSHS_Vol126/75-83.pdf

Book Reviews

Whitaker, D. (2015). [Review of the book *The Best Writing on Mathematics 2014*, by M. Pitici]. *The Key Reporter*. Retrieved from <http://www.keyreporter.org/BookReviews/LifeOfTheMind/Details/1582.html>

Whitaker, D. (2015). [Review of the book *Bee Time: Lessons from the Hive*, by M. L. Winston]. *The Key Reporter*. Retrieved from <http://www.keyreporter.org/BookReviews/LifeOfTheMind/Details/1396.html>

Whitaker, D. (2014). [Review of the book *How Not to Be Wrong: The Power of Mathematical Thinking*, by J. Ellenberg]. *The Key Reporter*. Retrieved from <http://www.keyreporter.org/BookReviews/LifeOfTheMind/Details/1098.html>

PRESENTATIONS

Invited Presentations

Whitaker, D. & Jacobbe, T. (2015, June). *LOCUS: Assessing Conceptual Understanding of Statistics*. Presented at the Statistics Society of Canada 2015 Annual Meeting (SSC), Halifax, NS, Canada.

Whitaker, D., & Jacobbe, T. (2014, October). *LOCUS: A Tool For Assessing Statistical Reasoning in the CCSS*. Presented at the National Council of Teachers of Mathematics 2014 Regional Conference and Exposition, Indianapolis, IN.

Case, C., Whitaker, D., Jacobbe, T., & Foti, S. (2014, July). *High school (ages 14 – 18) students' understanding of statistics*. Paper presented at the Ninth International Conference on Teaching Statistics (ICOTS), Flagstaff, AZ.

Foti, S., Whitaker, D., & Jacobbe, T. (2014, July). *Middle school (ages 10 – 13) students' understanding of statistics*. Paper presented at the Ninth International Conference on Teaching Statistics (ICOTS), Flagstaff, AZ.

Jacobbe, T., Whitaker, D., Foti, S., & Case, C. (2014, July). *Establishing the validity of the LOCUS assessments through an evidenced-centered design approach*. Paper presented at the Ninth International Conference on Teaching Statistics (ICOTS), Flagstaff, AZ.

Whitaker, D., Jacobbe, T., Foti, S., & Case, C. (2014, July). *The LOCUS assessment at the college level: conceptual understanding in introductory statistics*. Paper presented at the Ninth International Conference on Teaching Statistics (ICOTS), Flagstaff, AZ.

National and International Presentations

Note: * denotes equal authorship

Whitaker, D. (2017, February). *How Mathematics Teachers Became Exemplary Statistics Teachers*. Presented at the Twenty-First Annual Conference of the Association of Mathematics Teacher Educators (AMTE), Orlando, FL.

Whitaker, D. (2016, November). *The Development of a Professional Statistics Teaching Identity*. Paper presented at the 38th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), Tucson, AZ.

- Whitaker, D. (2016, August). *The Professional Identities of Exemplary Advanced Placement Statistics Teachers*. Presented at the 2016 Joint Statistical Meetings (JSM), Chicago, IL.
- Kennedy-Lewis, B.L., Whitaker, D., & Soutullo, O. (2016, April). *Educators' Justifications For Sending Students to A Disciplinary Alternative School Versus Student Outcomes: Examining Consistencies and Contradictions*. Presented at the American Educational Research Association Annual Meeting (AERA), Washington, DC.
- Whitaker, D. (2016, February). *The Development of Exemplary Statistics Teachers' Professional Identities*. Presented at the 43rd Annual Conference of the Research Council on Mathematics Learning (RCML), Orlando, FL.
- Whitaker, D. (2015, November). *In-Service Statistics Teachers' Professional Identities*. Poster presented at the 37th Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education (PME-NA), East Lansing, MI.
- Whitaker, D. (2015, June). *Students' Understanding of Histograms and Bar Graphs: Results from the LOCUS Assessments*. Poster presented at the Statistics Society of Canada 2015 Annual Meeting (SSC), Halifax, NS, Canada.
- Whitaker, D. (2015, June). *Transition and Collaboration: The Identity of an AP Statistics Teacher*. Poster presented at the Statistics Society of Canada 2015 Annual Meeting (SSC), Halifax, NS, Canada.
- Whitaker, D. (2015, June). *Transition and Collaboration: The Identity of an AP Statistics Teacher*. Poster presented at the 3rd Annual SSC Student Conference, Halifax, NS, Canada.
- delMas, R., Jacobbe, T., & Whitaker, D. (2015, May). *Establishing the Validity and Reliability of Assessments of Statistical Understanding*. Poster presented at the United States Conference On Teaching Statistics 2015 (USCOTS), State College, PA.
- Case, C., Foti, S., Whitaker, D., & Jacobbe, T. (2015, February). *LOCUS: Assessing Students' and Teachers' Knowledge of Statistics*. Presented at the Research Council on Mathematics Learning 42nd Annual Meeting (RCML), Las Vegas, NV.
- *Case, C., Foti, S., & Whitaker, D. (2014, November). *The Impact of Collaborative Teaching for Graduate Students*. Presented at the School Science and Mathematics Association 2014 Annual Convention (SSMA), Jacksonville, FL.

Whitaker, D., Foti, S., Case, C., & Jacobbe, T. (2014, November). *LOCUS Assessments: Implications for and Uses in Research and Teaching*. Presented at the School Science and Mathematics Association 2014 Annual Convention (SSMA), Jacksonville, FL.

Whitaker, D., Foti, S., & Jacobbe, T. (2014, July). *Investigation of AP statistics students' understanding of technical terminology with possible lexical ambiguities*. Poster presented at the Ninth International Conference on Teaching Statistics (ICOTS), Flagstaff, AZ.

Jacobbe, T., Whitaker, D., Case, C., & Foti, S. (2014, April). *LOCUS: A Tool for Assessing Statistical Reasoning in the CCSS*. Presented at National Council of Teachers of Mathematics Annual Conference (NCTM), New Orleans, LA.

Jacobbe, T., delMas, R. C., Haberstroh, J., Hartlaub, B., Whitaker, D., Case, C., & Foti, S. (2014, April). *A Measure of Students' Understanding of Statistics*. Poster presented at the American Educational Research Association Annual Meeting (AERA), Philadelphia, PA.

Jacobbe, T., Haberstroh, J., delMas, R. C., Hartlaub, B., Whitaker, D., Case, C., & Foti, S. (2014, April). *Establishing the Content Validity of the LOCUS Assessments Through Evidence-Centered Design*. Paper presented at the American Educational Research Association Annual Meeting (AERA), Philadelphia, PA.

Whitaker, D. & Case, C. (2013, August). *LOCUS Pilot Study and Preliminary Findings*. Topic Contributed Paper presented at the Joint Statistics Meetings (JSM), Montreal, QC, Canada.

Pennock Schaub, M., Wade, D., & Whitaker, D. (2012, October). *The Effects of Attitude and Explicit Instruction on Second Language Phonological Skills: Voiceless Occlusives and Vowels*. Poster presented at The 2012 Hispanic Linguistics Symposium, Gainesville, FL.

State and Regional Presentations

Whitaker, D. (2016, May). *Four Tensions from Changing with Technology: In Search of Balance*. Presented at the eCots 2016 North Florida Regional Mini Conference, Gainesville, FL.

Gaulee, U., Lee, B., Ridgewell, N.K., Butcher, C., Koro-Ljungberg, M., Whitaker, D., Almazam, F., & Watson, D. M. (2013, November). *Constructivist Study of Graduate Students' Health Care Experiences*. Paper presented at the 58th Annual Meeting of the Florida Educational Research Association (FERA), Gainesville, FL.

Whitaker, D., Giurcanu, M., Gonzalez, P., Roberts, P., Hendricks, K., Roman, F., Young, L., & Etxeberria, E. (2013, June). *Using Citrus Leaf Starch Content to Predict Huanglongbing Disease with and without a Gold Standard*. Paper presented at The 126th Annual Meeting of the Florida State Horticultural Society, Sarasota, FL.

Local Presentations

Foti, S., Case, C., & Whitaker, D. (2014, October). *The Impact of Collaborative Teaching for Graduate Students*. Poster presented at the 2014 Graduate Student Research Day, Gainesville, FL.

Dobson, Smithka, I., & Whitaker, D. (2014, April). *Lecture Plus: How to Lecture More Effectively*. Poster presented at The 10th Annual SAGE Research Symposium, Gainesville, FL.

Whitaker, D. (2014, April). *Worlds Collide: The Vocabulary of AP Statistics Students*. Poster presented at The 10th Annual SAGE Research Symposium, Gainesville, FL.

Whitaker, D. & Jacobbe, T. (2013, April). *The Evolution of Items from the LOCUS Assessment*. Poster presented at The 9th Annual SAGE Research Symposium, Gainesville, FL.

Digital Presentations

Whitaker, D. (2016, May). *Statistics as a Potential Way to Change Mathematics Instruction in High School Teachers*. Poster presented at The Third Biennial Electronic Conference on Teaching Statistics (eCOTS).

Case, C., Whitaker, D., Foti, S., & Jacobbe, T. (2014, May). *LOCUS as a Tool to Measure Teachers' Preparation to Teach Statistics*. Poster presented at The Second Biennial Electronic Conference on Teaching Statistics (eCOTS).

SOFTWARE

Huggins-Manley, A.C. & Whitaker, D. (2014). *SEAsic: Score Equity Assessment- summary index computation*. R package version 0.1. <http://cran.R-project.org/package=SEAsic>

Whitaker, D. & Christman, M. (2010). *clustsig: Similarity Profile Analysis*. R package version 1.0. <http://cran.R-project.org/package=clustsig> [2014: version 1.1 released]

COURSES TAUGHT

Note: * denotes Co-Instructor; † denotes Team Teaching

University of Wisconsin-Stout, Menomonie, WI

- Intermediate Algebra (undergraduate: Fall 2016, Spring 2017)
- Concepts of Mathematics (undergraduate: Fall 2016, Spring 2017)

University of Florida, Gainesville, FL

- Introduction to Statistics I (undergraduate: Fall 2011)
- Introduction to Statistics II (undergraduate: Spring 2011, Spring 2012, Summer B 2012)
- Mathematics Content and Methods for Teaching Mathematics in the Inclusive Elementary Class Part 2 (undergraduate: Fall 2015)
- *Research Methods of Construction (graduate: Fall 2012)
- *Teaching K-8 Math Methods (graduate: Summer A 2013)

P.K. Yonge Developmental Research School, Gainesville, FL

- †Advanced Placement (AP) Statistics (AY 2013-2014)

FELLOWSHIPS AND AWARDS

2017 – 2018	AMTE Service, Teaching, and Research (STaR) Fellowship
2014 – 2015	Community for Advancing Discovery Research in Education (CADRE) Fellowship (NSF DRL-0822241) (A partnership between NSF and EDC)
2014	I-Cubed Graduate Student Mentoring Award (with Catherine Case and Steven Foti), University of Florida
2012 – 2016	Graduate School Fellowship, University of Florida
2010	Elected to Phi Beta Kappa, University of Florida

GRANTS

2017	University of Wisconsin-Stout, Professional Development Grant (\$1147)
2017	Validity Evidence for Measurement in Mathematics Education Conference (\$850 + hotel)
2015	University of Florida, Graduate Student Council Travel Grant (\$350)
2015	Statistics Society of Canada, Statistical Education Section – Registration Fee (C\$215)
2015	University of Florida, School of Teaching and Learning Travel Grant (\$350)
2014	University of Florida, School of Teaching and Learning Travel Grant (\$350)
2014	University of Florida, Mathematics Education Program Travel Grant (\$800)
2014	University of Florida, School of Teaching and Learning Travel Grant (\$450)
2013	University of Florida, Graduate Student Council Travel Grant (\$250)

2013 University of Florida, School of Teaching and Learning Travel Grant (\$500)

SERVICE

Service to the Profession and University

2017 – Present Member, Math Teaching and Learning Center Coordinator Search Committee, Department of Mathematics, Statistics, and Computer Science, University of Wisconsin-Stout

2016 – Present Member, Colloquium Committee, Department of Mathematics, Statistics, and Computer Science, University of Wisconsin-Stout

2016 Volunteer, First Annual College of Education Research Symposium, University of Florida

2014 – 2015 Member, Mathematics Education Assistant/Associate Professor Search Committee, School of Teaching and Learning, University of Florida

2014 Session Chair, Ninth International Conference on Teaching Statistics (ICOTS)

2014 Judge, American Statistical Association's National K-12 Poster Competition

2013 – 2014 I-Cubed Graduate Student Advisory Council Member

2012 – 2013 President of Statistics Club at University of Florida

2011 – 2012 Student Seminar Coordinator, Department of Statistics, University of Florida

Service to the Community

2015 Judge, Alachua County VEX Robotics Competition

2012 – 2016 Science Fair Judge, Alachua County Public Schools

Refereeing Service

Reviewer, Ninth International Conference on Teaching Statistics (ICOTS)

Reviewer, 43rd Annual Conference of the Research Council on Mathematics Learning (RCML)

Reviewer, *Statistics Education Research Journal* (SERJ)

Reviewer, *Journal of Statistics Education* (JSE)

Reviewer, *Teaching Children Mathematics* (TCM)

Reviewer, *Teaching Innovations in Statistics Education* (TISE)

PROFESSIONAL MEMBERSHIPS

American Statistical Association (ASA)

Association of Mathematics Teacher Educators (AMTE)

National Council of Teachers of Mathematics (NCTM)

North American Chapter of the International Group for the Psychology of Mathematics
Education (PME-NA)

Research Council on Mathematics Learning (RCML)

TODOS: Mathematics for ALL