Curriculum Vitæ
LAURIE C. MURPHY
March 2015

Pacific Lutheran University
Department of Computer Science
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Employment

Pacific Lutheran University, Tacoma, Washington

Chair, Department of Computer Science and Computer Engineering (2014 to present)

Associate Professor of Computer Science, tenured (2006 to present)

Interim Coordinator, The Wild Hope Project on Vocation (2009 to 2010)

Assistant Professor of Computer Science (2000 to 2006)

Visiting Assistant Professor of Computer Science (1997 to 2000)

Computer Science Education, Taylor & Francis publishers

Co Editor-In-Chief (Feb. 2007 to present)

University of Mississippi, Oxford, Mississippi

Instructor of Computer and Information Science (1988 to 1997)

Vanderbilt University, Nashville, Tennessee

Graduate Research Assistant (1987 to 1988)

Graduate Teaching Assistant (1986 to 1987)

Education

M.S.	Computer Science	Vanderbilt University, Nashville, Tennessee
B.S.	Mathematics	Delta State University, Cleveland, Mississippi

Conference and Journal Papers

Bug Infestation!: A Goal-Plan Analysis of CS2 Students' Recursive Binary Tree Solutions. L. Murphy, S. Fitzgerald, S. Grissom, and R. McCauley. In Proceedings of the Forty-Sixth SIGCSE Technical Symposium on Computer Science Education. Kansas City, Missouri, March 2015.

Recursion vs. Iteration: An Empirical Study of Comprehension Revisited. R. McCauley, B. Hanks, S. Fitzgerald, and L. Murphy. In Proceedings of the Forty-Sixth SIGCSE Technical Symposium on Computer Science Education. Kansas City, Missouri, March 2015.

Teaching and Learning Recursive Programming: A Review of the Computing Research Literature. R. McCauley, S. Grissom, S. Fitzgerald, and L. Murphy. Computer Science Education, 25(1), March 2015.

'Explain in Plain English' Questions Revisited: Data Structures Problems. M. Corney, S. Fitzgerald, B. Hanks, R. Lister, R. McCauley, and L. Murphy. In Proceedings of the Forty-Fifth SIGCSE Technical Symposium on Computer Science Education. Atlanta, Georgia, March 2014.

What Are We Thinking When We Grade Programs? S. Fitzgerald, B. Hanks, R. Lister, R. McCauley and L. Murphy. In Proceedings of the Forty-Fourth SIGCSE Technical Symposium on Computer Science Education. Denver, Colorado, March 2013.

Ability to 'Explain in Plain English' Linked to Proficiency in Computer-based Programming. L. Murphy, S. Fitzgerald, R. Lister and R. McCauley. In Proceedings of ICER '12: the Eighth International Workshop on Computing Education Research. Auckland, New Zealand, September 2012.

'Explain in Plain English' Questions: Implications for Teaching. L. Murphy, R. McCauley and S. Fitzgerald. In Proceedings of the Forty-Third SIGCSE Technical Symposium on Computer Science Education. Raleigh, North Carolina, March 2012.

Pair Programming in Education: A Literature Review. S. Fitzgerald, B. Hanks, R. McCauley, L. Murphy, and C. Zander. Computer Science Education, 21(2), June 2011.

Pair Debugging: a Transactive Discourse Analysis. L. Murphy, S. Fitzgerald, B. Hanks and R. McCauley. In Proceedings of ICER '10: the Sixth international workshop on Computing education research. Aarhus, Denmark, August 2010.

Debugging from the Student Perspective. S. Fitzgerald, R. McCauley, B. Hanks, L. Murphy, B. Simon, and C. Zander. IEEE Transactions on Education, 53(3), August 2010.

Creating video podcasts for CS1: Lessons learned. L. Murphy and D. Wolff. Journal of Computing Sciences in Colleges, 25(1). Tacoma, Washington, October 2009.

For Me, Programming is. . . B. Simon, B. Hanks, R. McCauley, B. Morrison, L. Murphy and C. Zander. In Proceedings of ICER '09: the Fifth International Computing Education Research Workshop. Berkeley, California, August 2009.

Learning Computer Science: Perceptions, Actions and Roles. A. Berglund, A. Eckerdal, A. Pears, P. East, P. Kinnunen, L. Malmi, R. McCartney, J.-E. Mostrm, L. Murphy, M. B. Ratcliffe, C. Schulte, B. Simon, I. Stamoulia, and L. Thomas. European Journal of Engineering Education, July 2009.

Learning Styles: Novices Decide. C. Zander, L. Thomas, B. Simon, L. Murphy, R. McCauley, B. Hanks, and S. Fitzgerald. In Proceedings of the Fourteenth Conference on Innovation and Technology in Computer Science Education (ITiCSE). Paris, France, June 2009.

CS1 Students Speak: Advice for Students by Students. B. Hanks, L. Murphy, B. Simon, R. McCauley and C. Zander. In Proceedings of the Fortieth SIGCSE Technical Symposium on Computer Science Education. Chattanooga, Tennessee, March 2009.

Saying Isn't Necessarily Believing: Influencing Self-theories in Computing. B. Simon, B. Hanks, L. Murphy, S. Fitzgerald, R. McCauley, L. Thomas and C. Zander. In ICER '08: Proceedings of the Third International Computing Education Research Workshop. Sydney, Australia, September 2008.

Dangers of a fixed mindset: implications of self-theories research for CS education. L. Murphy and L. Thomas. In Proceedings of the Thirteenth Conference on Innovation and Technology in Computer Science Education (ITiCSE). Madrid, Spain, June 2008.

Debugging: A Review of the Literature from an Educational Perspective. R. McCauley, S. Fitzgerald, G. Lewandowski, L. Murphy, B. Simon, L. Thomas, and C. Zander. Computer Science Education, special issue on debugging, 18(2), June 2008.

Debugging: Finding, Fixing and Flailing, A Multi-Institutional Study of Novice Debuggers. S. Fitzgerald, G. Lewandowski, R. McCauley, L. Murphy, B. Simon, L. Thomas, and C. Zander. Computer Science Education, special issue on debugging, 18(2), June 2008.

Debugging: The good, the bad, and the quirky a qualitative analysis of novices' strategies. L. Murphy, G. Lewandowski, R. McCauley, B. Simon, L. Thomas, and C. Zander. In Proceedings of the Thirty-Ninth SIGCSE Technical Symposium on Computer Science Education, Portland, Oregon, March 2008.

What's the problem? teachers' experience of student learning successes and failures. A. Pears, A. Berglund, A. Eckerdal, P. East, P. Kinnunen, L. Malmi, R. McCartney, J.-E. Moström, L. Murphy, M. B. Ratcliffe, C. Schulte, B. Simon, I. Stamoulia, and L. Thomas. In Proceedings of Koli Calling, 7th Baltic Sea Conference on Computing Education Research. Koli National Park, Finland, November 2007.

Through the Eyes of Instructors: A Phenomenographic Investigation of Student Success. P. Kinnunen, R. McCartney, L. Murphy, and L. Thomas. In ICER '07: Proceedings of the 3rd International Computing Education Research Workshop, Atlanta, Georgia, August 2007.

Women catch up: gender differences in learning programming concepts. L. Murphy, R. McCauley, S. Westbrook, B. Richards, B. Morrison and T. Fossum. In Proceedings of the Thirty-Seventh SIGCSE Technical Symposium on Computer Science Education. Houston, Texas, March 2006.

Take a minute to complete the loop: using electronic classroom assessment techniques in computer science labs. L. Murphy and D. Wolff. Journal of Computing Sciences in Colleges, 21(2). December 2005.

Knowing what I know: an investigation of undergraduate knowledge and self-knowledge of Data Structures. J. Tenenberg and L. Murphy. Computer Science Education, 15(4), December 2005.

An integrative analysis using card-sort measures and content analysis to evaluate graduating students' knowledge of programming concepts. R. McCauley, L. Murphy, S. Westbrook, S. Haller, C. Zander, T. Fossum, K. Sanders, B. Morrison, B. Richards and R. Anderson. What do successful computer science students know? Expert Systems, 22(3), July 2005.

A multi-institutional, multinational study of programming concepts using card sort data. K. Sanders, D. Bouvier, S. Fincher, G. Lewandowski, B. Morrison, L. Murphy, M. Petre, J. Tenenberg, L. Thomas, R. Anderson, R. Anderson, S. Fitzgerald, A. Gutschow, S. Haller, M. Jadud, R. Lister, R. McCauley, J. McTaggart, C. Prasad, B. Richards, T. Scott, D. Shinners-Kennedy, S. Westbrook, and C. Zander. Expert Systems, 22(3), July 2005.

Do Computer Science students know what they know?: A calibration study of data structure knowledge. L. Murphy and J. Tenenberg. In Proceedings of the Tenth Conference on Innovation and Technology in Computer Science Education (ITiCSE), 37(3). Monte de Caparica, Portugal, June 2005.

A multi-institutional investigation of computer science seniors' knowledge of programming concepts. L. Murphy, R. McCauley, S. Westbrook, T. Fossum, S. Haller, B. Morrison, B. Richards, K. Sanders, C. Zander and R. Anderson. In Proceedings of the Thirty-Sixth SIGCSE Technical Symposium on Computer Science Education. St. Louis, Missouri, February 2005.

Targeting Assessment: How to Hit the Bull's Eye. K. Blaha and L. Murphy. Journal of Computing Sciences in Colleges, 17(2), December 2001.

Grants and Awards

PLU Teaching and Learning with Technology (TLT) Grant to fund "Social Media and Video Podcasts to support a new course in Media Computation," 2011-2012.

Computing Research Association's Committee on the Status of Women in Computing Research (CRA-W) travel grant to attend career mentoring workshop, November 2012.

Northwest Academic Computing Consortium (NWACC) Proof of Concept Grant to fund "Scaffolding active programming instruction with theoretically grounded screencasts and annotated worked examples," with David Wolff, 2008-2009.

PLU Regency Advancement Award to fund "An Investigation of Novice Pair Debugging," 2008-2009.

NSF funding to attend STEM Workshop on Active Learning, UC San Diego, July 2008.

NSF funding to attend DEBUG summer research workshop, May 2007 and May 2008.

Inspirational Woman award from the PLU Women's Center, 2006.

NSF travel grant to attend ICER '06, Sept. 2006, University of Kent, Canterbury, UK.

CRA-W Collaborative Research Experiences for Undergraduates (CREU) grant to fund "Electronic Assessment Tools for Introductory Computer Science: Enabling Feedback from the Laboratory to the Classroom," with D. Wolff, 2004-2005.

NSF funding to attend Bootstrapping summer workshops, June 2002 and June 2003.

CRA-W travel grants to attend SIGCSE and CRA-W workshop, March 2002.

PLU Center for Teaching and Learning Grant, "Project Based Peer-Mentoring," with Kenneth Blaha, 2001.

Professional Activities

Professional Societies:

Association for Computing Machinery (ACM)

Special Interest Group for Computer Science Education (ACM-SIGCSE)

Consortium for Computing Sciences in Colleges - Northwest (CCSC-NW)

Panels and Invited Talks:

Invited panelist, "Developing Videos and Screencasts!" for the PLUTO Online Institute, January 2015.

Invited panelist and presenter, "Preparing Graduates for Big Data," PLU eBusiness Day, December 2013.

Panelist, "Report on Qualitative Research Methods Workshop" at SIGCSE 2011, Dallas, Texas.

Invited panelist, PLU Psychology 315: Psychology of Women - panel on women in male dominant fields, Spring 2010.

Invited presentation, "Debugging Computer Science Education," PLU Faculty Scholarship Dinner, October 2007.

Presenter with J. Tenenberg et al, "Building a Disciplinary Commons using Course Portfolios," Pacific Northwest Higher Education Teaching and Learning Conference, Vancouver, Washington, May 2006.

K-12 Outreach panel participant, CCSC-NW Conference, University of Washington, Bothell, October 2005

Invited member of a panel on Teaching Positions at Teaching Oriented Universities given to University of Washington (Seattle) CE and EE graduate students, May 2004.

Invited speaker on Teaching CS1 and CS2 for the Education and Educational Technology Graduate Seminar at the University of Washington (Seattle), May 2003.

Accreditation panel participant, CCSC-NW Conference, Pacific Lutheran University, Tacoma, Washington, October 2001.

Active and Cooperative Learning panel organizer and participant, CCSC-NW Conference, Seattle Pacific University, October 2002.

Panels and Tutorials Chair, CCSC-NW Conference, 2001-2002.

Conferences, Workshops and Courses Attended:

PLU Summer Advising Workshop, August 2014.

Council of Independent Colleges Chairs' Workshop, Spokane, WA, June 2014.

Peer Instruction in Computer Science SIGCSE workshop, Denver, CO, March 2013.

Committee on the Status of Women in Computing Research (CRA-W) Advanced Career Mentoring Workshop, San Francisco, CA, November 2012.

Northwest Academic Computing Consortium (NWACC) sponsored workshop "Using Social Media to Enrich Learning Experience," Salem, OR, May 20-22, 2012.

ICER - International Computing Education Research Workshop (2005, 2006, 2007, 2009, 2011, 2013)

Half-day workshop on Peer Learning at ICER, Providence, Rhode Island, August 2011.

Workshop on qualitative research methods for Computer Science Education, Day 1–Berkeley, CA, August 2009, Day 2–Milwaukee, WI, March 2010

How People Learn - an educational theory course at Evergreen State College, Fall 2006 and Winter 2007 quarters

DEBUG research group summer workshop, Federal Way, WA, May 2007 and May 2008

Statistics Bootcamp for Computer Science Education Researchers, Georgia Tech University, Atlanta, GA, September 2007

PhICER - Second International Workshop on Phenomenography in Computing Education Research, University of Kent, Canterbury, UK, September 2006

Teaching with Lego Robots SIGCSE workshop, Cincinnati, Ohio, March 2007

Disciplinary Commons, a course portfolio workshop for regional community college and four-year faculty, Sept. 2005-June 2006.

Member and facilitator of a year-long PLU Wild Hope Faculty Study Seminar on vocation, 2006.

PLU Center for Teaching and Learning (CTL) workshop on learning styles, 2003-2004.

Bootstrapping Research in Computer Science Education participant

Initial Workshop, Port Townsend, WA, June 1 - 6, 2002

Capstone Workshop, Port Townsend, WA, June 7 - 12, 2003

SIGCSE Technical Symposium (2000, 2002, 2003, 2005, 2007-2014)

SIGCSE Paper Session Chair (2013)

Northwest Consortium for Computer Sciences in Colleges (CCSC-NW) (1999–2005, 2009, 2012)

CCSC-NW Paper Session Chair (2012)

Group and Cooperative Learning SIGCSE workshop, Cincinnati, Ohio, March 2002.

CRA-W Managing the Academic Career for Faculty Women at Computer Science and Engineering Institutions, SIGCSE Workshop, February 27, 2002

Bridging the Digital Divide: Women and Girls in Technology Symposium, South Seattle Community College, July 2001

CSAC/CSAB Accreditation Training, Austin, Texas, March 2000

Reviewing:

Ph.D. Student Research: SIGCSE 2008 Doctoral Consortium Discussant, Portland, OR, March 2008

Grants: NSF Course Curriculum & Laboratory Improvement (CCLI) Phase I, invited reviewer, Washington, D.C., July 2007

Conference Papers: SIGCSE (2004–2014), ITiCSE (2005–2007), CCSC-NW (2001–2006, 2009)

Invited member of the International Computing Education Research Workshop (ICER) Program Committee (2007, 2009-2014)

Journal Manuscripts: invited reviewer for *Computer Science Education* and *ACM Transactions on Computing Education (TOCE)*

Textbooks:

Gaddis, T., *Starting Out With Java: Control Structures through Objects,* 5th ed., Addison-Wesley/Person, 2013.
Glass, G. and K. Ables, *Unix for Programmers and Users*, 3rd ed., Prentice-Hall, 2003.
Lewis, J. and W. Loftus, *Java Software Solutions*, 4th ed., Addison-Wesley, 2005

Courses Taught at Pacific Lutheran University:

Introduction to Computer Science (Java), Data Structures (Java & C++), Programming Language Concepts, Design &

Analysis of Algorithms, Unix System Design, Programming Media Computation in Python, Virtual Worlds with Alice,

Solve it with the Computer, Computerized Information Systems.

Courses Taught at The University of Mississippi:

Computer Programming I, Computer Programming II, File Systems, Computer Organization and Assembly Language,

C++ Programming, Automata Theory, Computer Simulation, Algorithms, Formal Language Theory, Computer Science

Survey, Personal Computer I, Special Topics: Unix and C for Engineers (Graduate Engineering Program - Jackson, MS).

Service

University Service and Activities at Pacific Lutheran University:

Member, Wild Hope Meant to Live Planning Team (2015)

Faculty Sponsor, PLU Student Chapter of the Association for Computing Machinery Women in Computing (ACM-W) (2012-2013)

Faculty chaperone for women Computer Science majors attending the Northwest Regional Women in Computing Conference, Portland, Oregon (April 2012 and October 2013)

Mentor to a Washington Achiever Scholar majoring in Computer Science (2010-2013)

Facilitator, Explore! Student retreat on vocation (January 2011)

Member, Faculty Affairs Committee (FAC) (2012-2013)

FAC Representative, PLU Benefits Committee (2012-2013)

Member, Division of Natural Sciences Strategic Planning Committee (2012-2013)

Member, Wild Hope Project Coordinating Team (2007–2013)

Member, Educational Policies Committee (EPC) (2008–2010)

EPC Representative, PLU Budget Advisory Committee (2009-2010)

Member, Human Participants Review Board (2010-2013)

Human Participants Review Board Division of Natural Sciences Unit Designate (2005–2006, 2007–2013)

Member, Campus Life Committee (2004–2006)

CSCE Departmental Library Liaison (2002–2006, 2010-2012)

Member, Division of Natural Sciences Administrative Associate Search Committee (2004)

Member, CSCE CS1/CS2 Outcomes Committee (2003)

First-Year Advisor (2002-2003, 2003-2004, 2014-2015)

Member, Mathematics Faculty Search Committee (2002)

Chair, Division of Natural Sciences Systems Administrator Search Committee (2001)

Chair, CSCE Faculty Search Committee (2000)

Community Service:

Workshop presenter, "Programming in Scratch," American Association of University Women (AAUW) Tech Trek Summer Camp for middle school girls, July 2014.

Volunteer, Thurston County Food Bank. Created an online data entry form for the food bank's bi-annual client survey and presented preliminary data analysis to the TCFB Board, Fall 2013.

Tutorial presenter, "Programming in Scratch," MESA Saturday Academy, April 2013.

Parent volunteer, Washington Middle School, Olympia, WA, school play t-shirt coordinator, 2014.

Parent chaperone, Girl Scout Troup 45033, Olympia, WA, 2013-present.

Parent volunteer, Pioneer Elementary School, Olympia, WA for various activities (e.g., PTA auction computer support, fall carnival, field day, ticket sales, t-shirt sales coordinator), 2008-2014.

Workshop presenter, "Programming in Scratch," Washington Middle School sixth grade girls' sci-tech classes, January 2008

Workshop presenter, "The Wonder of Alice," Expanding Your Horizons, a math, science and technology conference for middle-school girls sponsored by IGNITE and UW-Tacoma, March 2005 and March 2006

Volunteer chaperone, Expanding Your Horizons, March 2004

Volunteer sail car competition judge, MESA (Math Engineering and Science) Day, a science competition designed to encourage minority middle and high school students in STEM, 2004–2005

Guest speaker, Tech Specs: Inviting Young Women Into Technology, an Intel sponsored afterschool program for high schools girls. Olympia High School, May 2002.