

# LEAH A. NILLAS

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## EDUCATION

### **Ph. D. in Mathematics Education**

Illinois State University, Normal, IL, 2010

*Dissertation: Preservice Teachers' Mathematical Understanding: The Role of Discourse*

### **Master of Arts in Mathematics**

University of the Philippines, Diliman, Quezon City, Philippines, 1995-1998

*Thesis: Summing Euler's Series in Six Ways*

### **Bachelor of Science in Secondary Education (Mathematics)**

Roosevelt College Foundation Center for Teacher Education, Cainta, Rizal, Philippines, 1990-1994

*Professional Board Examination for Teachers (PBET), June 1994*

*Honors: Magna Cum Laude, Class 1994*

## POSITIONS HELD

### ***Assistant Professor, August 2004-present***

Educational Studies, Illinois Wesleyan University

### ***Teaching Assistant, August 2001-August 2004***

Mathematics Department, Illinois State University

### ***Research Assistant, Summer 2003***

Mathematics Department, Illinois State University

### ***Summer Conference Assistant, Summer 2002***

University Housing Services, Illinois State University

### ***Assistant Professor 1, 1999-2001***

University of the Philippines Open University (UPOU)

### ***University Research Associate 2, 1996-1999***

University of the Philippines Open University (UPOU)

### ***University Research Associate 1, 1995-1996***

University of the Philippines Open University (UPOU)

### ***Graduate Assistant, 1995***

University of the Philippines Open University (UPOU)

### ***High School Teacher, 1994***

Roosevelt College System (Philippines)

### ***Mathematics Instructor, Summer 1994***

Quezon City Medical Center and Colleges (Philippines)

## RESEARCH INTERESTS

Preservice teacher education (content knowledge, beliefs in teaching mathematics, and participation in classroom discourse)  
Teaching and learning with technology  
Teacher research (self-study)

## PUBLICATIONS (PEER REVIEWED)

### *Journal Articles*

- Sheehan, M., & Nillas, L. A. (2010). Technology integration in secondary mathematics classrooms: Effect on students' understanding. *Journal of Technology Integration*, 2(3).
- Nillas, L. A. (2010). Fraction operations: Preservice teachers' misconceptions and perceptions about problem solving. *The Mathematics Educator*, 12(2), 103-124.
- Nillas, L. A. (2010). Characterizing preservice teachers' mathematical understanding of algebraic relationships. *International Journal of Mathematics Teaching and Learning*, October, 1-24.
- Ferber, T., & Nillas, L. A. (2010). Through the eyes of student teachers: Successes and challenges in field teaching experiences. *National Teacher Education Journal*, 3(2), 71-96.
- Paras, E., Piche, B., and Nillas, L. A. (2010). The use of primary sources in high school history classrooms. *The Teaching with Primary Sources Journal*, 1(2).
- Nillas, L. A. (2003). Division of fractions: Preservice teachers' understanding and use of problem solving strategies. *The Mathematics Educator*, 7(2) 96-113.
- Nillas, L. A. (2002). Does language make a difference? A TIMSS-R Analysis. *The Mathematics Educator*, 6(2) 95-112.

### *Journal Articles (Under Review for Fall 2010 Publication)*

- Nillas, L. A. (under review). Mapping preservice teachers' mathematical understanding. *The Mathematics Educator*.

### *Book Chapters*

- Nillas, L. A. (2004). Facilitating classroom discourse: Lessons from research. In D. Hesse, L. Ostergaard, & K. McKinney (Eds.), *"With zeal unceasing" Essays on teaching at Illinois State University*. Center for the Advancement of Teaching, Normal: IL.
- Nillas, L. A. (2002). Widening student access through online discussion. In H. P. Dikshit, S. Garg, S. Panda, & Vijayshri (Eds.), *Access and equity: Challenges for open and distance learning* (pp. 310-324). New Delhi, India: Kogan Page.

### *Conference Proceedings*

- Nillas, L. A. (2008). Challenges in preparing preservice teachers to teach using technology. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2008* (pp. 4256-4261). Chesapeake, VA: AACE.
- Nillas, L. A. (2002). Expanding student support system through online discussion. *Proceedings of the 2<sup>nd</sup> International Conference on Teacher Education*, July 2-4, 2001, UP Diliman, Quezon City, Philippines.

### *Manuscripts in Progress*

- Sociomathematical Norms in Classroom Discourse – *School Science and Mathematics Journal*  
Facilitating Group Work: A Supervisor's and a Student-Teacher's Reflections (with Ellen Ho) – *Studying Teacher Education*

## **GRANTS/SCHOLARSHIPS**

Curriculum Grant: Integrating Content and Pedagogy Teaching Secondary Mathematics, Illinois Wesleyan University, 2010 (for spring 2011 submission)  
Artistic Scholarship Development Grant: JOTI Article Publication, Illinois Wesleyan University, 2010 (for December 2010 submission)  
Instructional Design Grant: Books for Mathematics Education, Illinois Wesleyan University, 2010 (for October 2010 submission)  
Teagle Grant: High Impact Practices in Teacher Education (with Robin Leavitt, Ana Floriani, and Pennie Gray), Illinois Wesleyan University, 2010-2012, \$1,600  
Curriculum Grant: Integrating Technology in Teaching Mathematics, Illinois Wesleyan University, 2005, \$2000,  
A Heritage/Arthur Vining Davis Collection Development Grant: Mathematics Education Collection in Ames Library (with Julia Dickinson), Illinois Wesleyan University, 2005, \$5000  
Thornton Scholarship, Illinois State University, 2004, \$1000  
Center for Teacher Education (CTE) Scholar, Philippines, 1990-1994

## **JOURNALS/BOOKS (SERVED AS REVIEWER)**

School Science and Mathematics Journal (SSMJ), 2008 - present  
Contemporary Issues in Teacher Education (CITE), 2008 - present  
Brodesky, A., Doherty, A., & Stoddard, J. (2008). *Digging into data with tinkerplots*. Emeryville, CA: Key Curriculum Press.  
Seidman, R. H. (Eds.). (2007). *Journal of Educational Computing Research*. Baywood Publishing Company Inc.  
Artzt, A. F., Armour-Thomas, E., & Curcio F. R (2007). Becoming a reflective mathematics teacher: A guide for observations and self assessment. *Mahwah, NJ: Lawrence Erlbaum Associates*.  
Levin, B. B., & Merritt, S. P. (Eds.). (2006). *Special issue: Action research for teacher empowerment and transformation*, Teacher Education Quarterly, 33, 3, *California Council of Teacher Education*.

## **CONFERENCE PRESENTATIONS (PEER REVIEWED)**

### ***Teachers Teaching with Technology (T<sup>3</sup>) International Conference***

"Exploring Mathematics Using TI-APPS" and "TI-Nspire CAS: A Beginner's Tour" T<sup>3</sup> International Conference. San Antonio, TX, February 2011. (proposals under review, result available in October 2010)  
"Exploring Geometry Using Cabri Jr. Geometry App" T<sup>3</sup> International Conference. Atlanta, Georgia. Mar. 2010.  
"Exploring Geometry Using Cabri Jr. App." Teachers Teaching with Technology (T<sup>3</sup>) 20th International Conference. Sheraton Hotel, Dallas, Texas. Mar. 2008.

### ***Illinois Council of Teachers of Mathematics***

"TI-Nspire CAS: An Interactive Overview: A Technology Lounge Presentation" 61th Annual Meeting: Building communities, Creating Opportunities, Illinois Council of Teachers of Mathematics. Springfield, IL. Oct. 2010.  
"Wiki: Writing in Math Made Easy" 60th Annual Meeting: Innovations in Teaching Mathematics, Illinois Council of Teachers of Mathematics. Peoria, IL. Oct. 2009.  
"Dynamic Data Analysis using Tinkerplots: A Technology Lounge Presentation" 60th Annual Meeting: Innovations in Teaching Mathematics, Illinois Council of Teachers of Mathematics. Peoria, IL. Oct. 2009.

"Teaching with Technology: Transforming How We Teach Mathematics" 52nd Annual Conference on the Teaching of Mathematics. Eastern Illinois University, Charleston, IL. Apr. 2009.

"Exploring Geometry Using Cabri Jr. with a Calculator" 59th Annual Meeting: Connections in Mathematics Landscape, Illinois Council of Teachers of Mathematics. Peoria Civic Center, Peoria, IL. Oct. 2008.

"Exploring Geometry Using Cabri Jr. App" Central Illinois and Southern Illinois District Lutheran Teachers' Conference. Hilton Hotel, Springfield, IL. Oct. 2008.

***Society for Information Technology and Teacher Education (SITE) International Conference***

"Challenges in Preparing Preservice Teachers to Teach using Technology" Society for Information Technology and Teacher Education (SITE) 19th International Conference. Riviera Hotel, Las Vegas, Nevada. Mar. 2008.

***American Educational Research Association (AERA)***

"Integrating Research in Pedagogical Content Knowledge and Practice" American Educational Research Association (AERA) Annual Meeting, Apr. 2007.

***Asian Association of Open Universities (AAOU)***

"Widening Student Access through Online Discussion: Case of the University of Philippines Open University." Accepted for paper presentation at the XVth Conference of the Asian Association of Open Universities (AAOU), February 22-24, 2002, New Delhi, India.

"Expanding Student Support System through Online Discussion." Presented at the 2<sup>nd</sup> International Conference on Teacher Education, July 2-4, 2001, UP Diliman, Quezon City, Philippines.

***University-Based Presentations (Non-Peer Reviewed)***

Technology Showcase: An Ed Studies Students' Presentation, Center for Liberal Arts, Bloomington, IL, January 20. 2009.

"Collaborative Story Writing (Math and Literature)", Illinois State National Writing Project: Showcase Day, Normal, IL, September 27, 2008.

"Collaborative Story Writing Using Wiki Technology: A Teaching Demo", Eureka Writing Workshop, Eureka, IL, July 11, 2008.

"Preservice Teachers Strategies and Understanding in Division of Fractions." Presented at the Illinois State University Graduate Symposium in Normal, IL, April 25, 2003.

**SEMINARS ATTENDED (PROFESSIONAL DEVELOPMENT)**

***Teachers Teaching with Technology (T<sup>3</sup>) International Conference***

Regional High School Mathematics Teacher Educator Workshop: TI-Nspire CAS, Geneseo, New York, June 4-6, 2010.

***Illinois Council of Teachers of Mathematics***

An Introduction to GeoGebra, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 17, 2009.

Inquire, Explore and Make Connections Using Multiple Visualizations Tools, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 16, 2009.

Engaging Enrichment, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 16, 2009.

Tablet Training 101, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 16-17, 2008.

Multiple Linked Representations with TI-Nspire, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 17, 2008.  
Using TI-Nspire CAS in Algebra 1, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 18, 2008.  
An Introduction to the TI-Nspire Handheld Calculator, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 20, 2007.  
A Hands-on Tour of my Favorite TI-Apps, Illinois Council for Teachers of Mathematics, Peoria Civic Center, Peoria, IL, October 19, 2007.

***The Associated Colleges of Illinois (ACIs)***

Arts and Sciences Colloquium: 25<sup>th</sup> Anniversary, Chicago, IL, September 25, 2009.  
Arts & Sciences Colloquium, Des Plaines, IL, September 28, 2007.

***American Educational Research Association (AERA)***

Self-Study Methodologies: Definitions, Theories, Methods, and Research Practice, American Educational Research Association (AERA) Annual Meeting, Chicago, IL, April 11, 2007.  
The Qualitative Analysis of Video: A Practical Guide (Parts 1 and 2), Using Video and Audio as a Data Source, American Educational Research Association (AERA) Annual Meeting, Chicago, IL, April 9, 2007.  
Basics of Digital Data Collection and Analysis of Qualitative Researchers: Software and Hardware for Text, Audio, and Video, American Educational Research Association (AERA) Annual Meeting, Chicago, IL, April 8, 2007.  
Accountability for Educational Quality: Shared Responsibility, 2003 Annual Meeting of American Educational Research Association, Chicago, IL, April 21-25, 2003.

***National Council of Teachers of Mathematics (NCTM)***

National Council of Teachers of Mathematics (NCTM) Central Regional Conference, Minneapolis, Minnesota, November 11-13, 2004

***University-Based Seminars (ISU, IWU, University of the Philippines)***

Central Illinois SMART User Conference, Bloomington, IL, April 24, 2010.  
Illinois State University Teaching and Learning Symposium, Marriott Hotel and Conference Center, Normal, IL, January 6, 2010.  
Writing Institute: Writing Across the (Digital) Curriculum: Using Emerging Technologies to Support Student Writing, Illinois Wesleyan University, Bloomington, IL, January 16, 2010.  
Writing Institute: Integrating Writing into the Deep Pedagogy of the Class, Illinois Wesleyan University, Bloomington, IL, August 12, 2009.  
Illinois State National Writing Project Renewal: An Interactive Workshop, Normal, IL, February 28, 2009.  
Pedagogical Symposium, Illinois Wesleyan University, Bloomington, IL, January 17, 2009.  
Writing Institute: Developing Writing Intensive Course for Sophomores, Illinois Wesleyan University, Bloomington, IL, August 13-15, 2008.  
Illinois State National Writing Project, Normal, IL, June 9-July 3, 2008.  
Globalizing the IWU Campus, Beckman Auditorium, Bloomington, IL, June 3-5, 2008.  
Illinois Wesleyan University Teaching Symposium, Center for Natural Sciences, Bloomington, IL, January 12, 2008.  
Teaching and Instructional Technology Workshop, Illinois Wesleyan University, Bloomington, IL, June 5-6, 2007.  
Introduction to Podcasting, Center for Teaching, Learning and Technology, Illinois State University, Spring 2007.  
Select Survey, Center for Teaching, Learning and Technology, Illinois State University, Spring 2007.  
Writing Partners/Writing Center, Illinois Wesleyan University, Bloomington, IL, November 6, 2007.

Discovering Algebra with Technology, Curriculum Key Press, Oakland, California, July 9-15, 2006  
 Technology for Middle Schools featuring The Geometer's Sketchpad and Tinkerplots, Curriculum Key Press, Oakland, California, July 16-22, 2006  
 Creating Digital Movies with I-Movie, Center for Teaching, Learning and Technology, Illinois State University, March 31, 2006.  
 Managing Your Website 2: Maintaining Your Website Using FrontPage, Center for Teaching, Learning and Technology, Illinois State University, March 23, 2006.  
 Managing Your Website 2: Maintaining Your Website Using Dreamweaver, Center for Teaching, Learning and Technology, Illinois State University, March 22, 2006.  
 Managing Your Website 1: The Basics Using FrontPage, Center for Teaching, Learning and Technology, Illinois State University, March 8, 2006.  
 Gradebooks on Spreadsheets, Center for Teaching, Learning and Technology, Illinois State University, March 2, 2006.  
 Managing Your Website 1: The Basics Using Dreamweaver, Center for Teaching, Learning and Technology, Illinois State University, March 2, 2006.  
 Electronic Grading/Editing Tools for Instructors, Center for Teaching, Learning and Technology, Illinois State University, February 28, 2006.  
 Your First Webpage Made Easy, Center for Teaching, Learning and Technology, Illinois State University, February 23, 2006.  
 Classroom-Library Collaboration, Illinois Wesleyan University, Bloomington, IL, January 26, 2005.  
 Teaching, Learning, and Scholarship: A Faculty Institute and Writing Workshop, Illinois State University, Normal, IL, May 17-19, 2004.  
 Illinois State University Graduate Symposium, Normal, IL, April 2004.  
 Illinois State University Undergraduate Symposium, Normal, IL, March 2004.  
 University Teaching Workshops, Illinois State University, Normal, IL, May 14-15, 2003.  
 Illinois State University Graduate Symposium, Normal, IL, April 25, 2003.  
 University Teaching Workshop, Center for the Advancement of Teaching, Illinois State University, January 9-10, 2002.  
 Performance Assessment, Teacher Educators' Colloquium, Conferencing Unit, Illinois State University, January 19, 2002.  
 4<sup>th</sup> Annual Teaching-Learning Symposium, Bone Student Center, Illinois State University, October 25, 2001.  
 International Conference on Teacher Education, University of the Philippines, Diliman, Quezon City, Philippines, July 2-4, 2001.  
 Seminar on Applications of Computer Graphic Arts in Teaching and Learning. University of the Philippines Open University (UPOU), Los Baños, Laguna, February 20, 2001.  
 1<sup>st</sup> UPOU Creative Video Workshop and Competition. University of the Philippines Open University, Los Baños, Laguna, February 15-16, 2001.  
 Re-inventing Education – Forging Strategic Global Partnerships in Education, Manila Peninsula Hotel, Philippines, November 16, 2000.  
 14<sup>th</sup> Conference of Asian Association of Open University, Shangri-la, Manila, Philippines, September 25-27, 2000.  
 Course Development and Delivery for Distance Education, Curtin University of Technology, Perth, Western Australia, June 10-17, 2000.  
 Script-Writing Workshop for University of the Philippines Open University Courses. AVTELL, UP Diliman, Quezon City, Philippines, May 9-10, 2000.  
 Philippine Education Reform and Human Development: A Civil Society Perspective", College of Education, UP Diliman, Quezon City, Philippines, April 5-7, 2000.  
 Office of Academic Support and Instructional Services (OASIS) and Simon Fraser University (SFU) Course Writing Workshop: Assessment Revisited. UPOU Los Baños, Laguna, Philippines 28 February-1 March 2000.  
 OASIS Course Writing Workshop. UPOU, AV Room, Los Baños, Laguna, Philippines January 26-29, 2000.

## **PROFESSIONAL MEMBERSHIPS**

Member, Asian Network, Spring 2006 – present  
Member, Phi Beta Delta International Honor Society (Epsilon Chi Chapter), 2006 - present  
Members, Illinois Council of Teachers of Mathematics (ICTM), 2004-present  
Member, International Group for the Psychology of Mathematics Education (PME), 2005-2006, 2010  
Member, American Educational Research Association (AERA), 2003-2008  
Member, Mathematics Education Research Group of Australasia (MERGA), 2003-2005  
Member, National Council of Teachers of Mathematics (NCTM), 2003-2005

## **IWU COMMITTEE SERVICE**

Member, Teacher Education Program (TEP) Committee, Fall 2005 - present  
Faculty Liaison, Illinois Wesleyan Golden Apple Scholars, Fall 2005 – present  
Interview Committee Member, Fulbright U.S. Student Program Scholarship, Spring 2010  
Member, Teaching and Learning with Technology Roundtable (TLTR) Committee, Fall 2009 - Spring 2010  
Faculty Panelist, ALANA Orientation, August 18, 2008  
Member, John Wesley Powell Conference Committee, Fall 2006 - 2008  
Internal Review Board (IRB) Committee, Fall 2005 - 2008  
Member, Asian Studies Team, Fall 2005 - 2008  
First Year Advisor, Fall 2005 – Spring 2006  
Volunteer Facilitator, Summer Reading Program (Mary Shelley's Frankenstein), Fall 2005  
May Term Advisory Committee (MTAC), Fall 2005 – Spring 2006

## **COMMUNITY SERVICE**

### ***Committee Member***

Search Committee Member, Outstanding Teacher Award Search Committee, Golden Apple of Central Illinois, 2008  
Search Committee Member, UP Diliman Ugnayan ng Pahinungod, Quezon City, Philippines, 1997  
President, Center for Teacher Education (CTE) Alumni Association, Roosevelt College Foundation Center for Teacher Education, 1994-1997, Cainta, Philippines

### ***Presenter/Mathematics Facilitator/Trainor***

Presenter, The Mclean Country 4-H Presentation: Who Are the Filipinos? Bloomington Public Library, January 11, 2010  
UP Diliman Affirmative Action Program '99, Pinukpuk Vocational School, Taga, Kalinga, Philippines  
UP Diliman Affirmative Action Program '98, Palawan College of Arts and Trade, Cuyo, Palawan, Philippines  
Volunteer, UP Diliman Ugnayan ng Pahinungod Oblation Corps, Quezon City, Philippines  
Math Facilitator, UP Diliman Affirmative Action Program '97, Claver National High School, Claver, Surigao del Norte, Philippines  
Volunteer Training Course, UP Diliman Ugnayan ng Pahinungod, Quezon City, Philippines  
UP Diliman Affirmative Action Program, Surigao del Norte, Philippines  
UP Diliman Affirmative Action Program '96, Nabunturan National High School, Nabunturan, Davao del Norte, Philippines