Dr. Sylvia Tiala

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Teaching, Learning and Leadership
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Education

- o **Ph D Industrial Education and Technology**
  Iowa State University
  Ames, IA, United States, 2005
- o **BS Industrial Studie**
  St. Cloud State University
  St. Cloud, MN, United States, 1981
- o **MS Industrial Education and Technology**
  Iowa State University
  Ames, IA, United States, 1977

Licensures and Certifications

- PLTW - Gateway to Technology: Project Lead the Way
- PLTW - Introduction to Engineering Design: Project Lead the Way
- PLTW - Digital Electronics: Project Lead the Way
- Master Educator License: State of Iowa

Work Experience

Academic - Post-Secondary

- **University of Wisconsin - Stout**, Teaching Learning and Leadership Department
  Associate Professor
  September 01, 2006 -

Academic - P-12

- **Boone Community School District**
  Instructor/Department Chair
  September 01, 1992 - June 15, 2006
- **Sauk Rapids Community School District**
  Instructor
  September 01, 1990 - June 01, 1991
- **Sioux Falls Public Schools**
  Instructor
  January 20, 1984 - June 1, 1989

Industry

- **Economic Development Group**
  Basic Skills Task Analysis
  June 10, 1992 - August 01, 1992
- **Packaging Sales and Consulting**
  Technical Writer
  October 7, 1991 - May 29, 1992
- **The Mathison Company**
  Reprographic Technician and Sales
  August 20, 1989 - July 2, 1990

Intellectual Contributions

Book

- Tiala, S. (2012). Re-envisioning STEM Teacher Preparation. IN Veenstra, C., Furst Bowe, J., & Padro, F. (Eds.), Advancing the STEM Agenda .
- McAlister, B., Hacker, M., & Tiala, S. (2008). Engineering content and the technology education curriculum. IN Custer, R., & Erekson, T. (Eds.), Assessment in technology education 56th yearbook , Peoria, IL: McGraw Hill/Glencoe.

Journal Article

- Tiala, S. (2011). Fab labs: reenvisioning innovation and "entrepreneering". *ASQ Higher Education Brief, 4*(5).
- Tiala, S., & Harris, K. (2011). The right time for recruiting new colleages. *The Technology Teacher, 77*(1), 32-36, Reson, VA: International Technology Education Association.
- Tiala, S., & Winegar, P. (2011). Integrating STEM into technology education programs. *ASQ Higher Education Brief, 4*(1), 6, American Society for Quality.
- Tiala, S. (2007). Integrating virtual reality in technology education labs. *The Technology Teacher, 66*, 9-13.

Presentations

Workshop

- Willison, J. (September 19, 2016). Research Skills: Supporting 21st Century Pedagogy. Research Skills: Supporting 21st Century Pedagogy, Orem, UT, United States.
- Tiala, S., Zagorski, K., Polzer, J., & Edenborg, K. (December 03, 2015). Caching the RSD. Student Research Skills Symposium, Menomonie, WI, United States.

Oral Presentation

- Tiala, S. (February 26, 2016). Process not product: a process-based curriculum for problem solving. Wisconsin Technology Education Association Conference, Wisconsin Dells, WI, United States.
- Tiala, S., Navarre, J., & Wilson, M. (April 17, 2015). RSD framework connecting resarch & pedagogy. Contemplative Pedagogy Conference, Green Lake, WI, United States.
- Tiala, S., & Simenson, S. (March, 2015). Framework for integrated STEM and digital fabrication. International Techology and Engineering Educator's 77th Annual Conference, Milwaukee, WI, United States.
- Tiala, S. (March 16, 2014). Fab labs - The future of STEM education?. Wisconsin Technology Education Association Conference, Wisconsin Dells, WI, United States.
- Tiala, S. (March 2, 2014). Fab labs: Changing people living learning and playing. International Techology and Engineering Educator's 76th Annual Conference, Orlando, FL, United States.
- Tiala, S. (March 15, 2013). Fab labs: The next national STEM initiative?. Wisconsin Technology Education Association Conference, Wisconsin Dells, WI, United States.
- Tiala, S. (July 20, 2011). Fab labs: re-envisioning innovation and "entrepreneering". Advancing the STEM Agenda in Education, the Workplace and Society, Menomonie, WI, United States.

- Tiala, S. (March 25, 2011). Technology/Engineering Education in a Spiky World. International Techology and Engineering Educator's 73rd Annual Conference, Minneapolis, MN, United States.
- Tiala, S. (March 16, 2007). Connecting Math to Technology using CAD Models. International Techology and Engineering Educator's 69th Annual Conference, San Antonio, TX, United States.
- Tiala, S. (March 15, 2007). Attaining science concepts using computer simulations. International Techology and Engineering Educator's 69th Annual Conference, San Antonio, TX, United States.
- Tiala, S. (October, 2006). Alice: Animatin made simple. Iowa Industry and Technology Education Conference, Des Moines, IA, United States.
- Tiala, S. (October 13, 2006). Connecting CAD to mathematics using MEMs sensors. Technology Education Confrence, Menomonie, WI, United States.
- Tiala, S. (March, 2003). Reprogrammable simultors: Issues for educators. International Technology Education Association 65th Annual Conference, Nashville, TN, United States.
- Tiala, S. (October, 1995). Integrating math, science and teachnology using teleoperated robots. Fifth Annual Iowa Space Conference, Waterloo, IA.
- Tiala, S. (November, 1994). Interactive space capsule simulation for high school students. Fourth Annual Iowa Space Conference, Iowa City, IA, United States.

Panelist

- Curry, R., Herker, G., Snyder, T., Tubon, T., Tadajewski, R., & Tiala, S. (November 09, 2015). Aligning college majors to in-demand jobs. Disruptive Innovation in Higher Education Summit, Washington, DC, United States.

Poster

- Tiala, S. (April 17, 2015). . Contemplative Pedagogy Conference, Green Lake, WI, United States.

Paper

- Tiala, S. (March, 2001). Interaction of learning styles and major of study with performance in traditional, simulated and virtual environments. Iowa State University's Education Research Exchange, Ames, IA, United States.

Applied Research

Uncategorized

- **Children's Museum of Eau Claire (Eau Claire, WI & University of Wisconsin - Stout)** Designing Universal Entrepreneurial Teams Project (September 2010 - December 2010)

Reviewer / Editor

Reviewer, Grant(s)

- **National Science Foundation** (2016)
- **National Science Foundation** (2012)
- **National Science Foundation** (2011)
- **National Science Foundation** (2008)
- **National Science Foundation** (2004)

Reviewer, Conference

- **American Society for Quality** (May 2011)
- **World Conference on Innovative Virtual Reality** (February 2010)

Reviewer, Journal

- **Journal of Student Research - University of Wisconsin - Stout** (March 2011)

Technology for All Americans Project

- o **A rationale and structure for the study of technology** (1995)

Professional Memberships

- Wisconsin Technology Education Association (WTEA)
- International Technology and Engineering Educators Association (ITEEA)

Service
Department / School

- o **Faculty Advisor**, Rube Goldberg Competition (September 2007 - May 2013)
- o **Faculty Advisor**, Technology Engineering and Eduation Collegiate Association (September 2006 - May 2013)
- o **Faculty Advisor**, Supermileage Vehcile Competition (September 2006 - May 2009)

University
UW Stout

- **Dissertation Committee Member**, Brian Bartel: Perceptions of transitional services and resources by military students attending public post-secondary institutions in central Wisconsin (September 2015 - Present)
- **Chairperson**, Creative Original Research Experiences (September 2008 - Present)
- **Co-Coordinator**, Research Skill Development Framework Community of Practice (June 2014 - June 2016)
- **Committee Member**, Curriculum and Instruction Committee - CEHHS (September 2010 - May 2016)
- **Faculty Mentor**, Cody Jolin: Why Reef: A virrtual, educational program analysis (2012 - 2014)
- **Plan B Advisor**, Theran Peterson, The effect of guided notes on student performance on Project Lead the Way end-of-course exams (June 2013)
- **Plan B Advisor**, Tammy Spoerk: The value of a summer STEP camp dvd fro prmoting engineering and technology careers in Milwaukee public school district (December 2012)
- **Plan A (Thesis) Chair**, Evan Sveum: A comparative study of university of Wisconsin- Stout freshemen and senior education major's computing and internet technology skills/knowledge and associated learning experiences. (2007 - 2010)