

**Derrick W. Smith, Ed.D., COMS**  
**Associate Dean, College of Education**  
**Associate Professor, Dept. of Curriculum and Instruction**  
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**EDUCATION**

**Doctorate of Education (Ed.D), Special Education**, Texas Tech University, Lubbock, TX., May, 2008.

**Certified Orientation and Mobility Specialist (COMS)**, Texas Tech University, Lubbock, TX. September, 2007.

**Educational Leadership Certification**, University of Alabama at Birmingham, Birmingham, AL. May, 2005.

**Master of Arts in Education (M.A.Ed.), Special Education** (Collaborative Teaching/Visual Impairments), University of Alabama at Birmingham, Birmingham, AL. December, 2003.

**Bachelor of Science (B.S.), Mathematics**, Faulkner University, Montgomery, AL. Major Field: Mathematics. May, 2000.

**Associate of Science (A.S.)**, Faulkner University, Montgomery, AL. May, 2000.

**TEACHING ACTIVITIES**

***College Teaching Experience***

**University of Alabama in Huntsville, Associate Dean, College of Education, 2018-present**  
**University of Alabama in Huntsville, Chair, Department of Curriculum and Instruction, 2015-2018**  
**University of Alabama in Huntsville, Associate Professor, 2014-present**  
**University of Alabama in Huntsville, Assistant Professor, 2008-2014**

- Introduction to Education Practicum (ED 301/501), undergraduate/graduate
- Introduction to Low Incidence Populations (EDC 302), undergraduate
- Critical Issues in Special Education (EDC 331), undergraduate
- Educating Exceptional Children and Youth (ED 593), graduate
- Elementary/Collaborative Teaching Internship (ED 493), undergraduate
- Instructional Strategies (ED 311), undergraduate
- Teaching Elementary Mathematics (ED 374), undergraduate
- Collaborative Consultation (EDC 321), undergraduate

- Teaching the Exceptional Child (EDC 301), undergraduate
- Elementary School Internship (ED 493), undergraduate
- Special Topics-Internship (ED 450), undergraduate
- High School Internship (ED 497), undergraduate
- Introduction to Differentiated Instruction (ED 565), graduate
- Differentiated Instruction for Special Populations (ED 570), graduate
- Assistive Technology for the Education of Individuals with ASD (EDC 625), graduate
- Educational Technology for Differentiated Instruction (ED 620), graduate
- Assessment Guided by Differentiated Instruction (ED 635), graduate
- Action Research Project (ED 690), graduate
- Introduction to Braille Literacy (EDC 654), graduate
- Advanced Braille and Assistive Technology (EDC 657), graduate
- Introduction to Orientation and Mobility (EDC 652), graduate
- Strategies for Students with Visual Impairments (EDC 653), graduate
- Programs for MIVI/DB (EDC 656), graduate
- Special Topics in Education (ED 402), undergraduate
- Foundations of Visual Impairments (EDC 551), graduate

**Texas Tech University, Adjunct Professor/Instructor**

- Instructional Strategies for Students with Visual Impairments (EDSP 5381), Summer 2009/Spring 2009-16 graduate, **online**
- Programs and Services for Individuals with Visual Impairments (EDSP 5380), Spring 2011, graduate, **online**
- Intermediate O&M for Multihandicapped and Blind (EDSP 5386), Summer 2008, graduate
- Advanced O&M for Multihandicapped and Blind (EDSP 5387), Summer 2008, graduate
- Exceptional Children and Youth (EDSP 3300), Spring 2008/Fall 2007/Spring 2007, undergraduate
- Introduction to Computers and Technology (EDIT 2318), Spring, undergraduate
- Learning and Special Populations (EDSP 3205), Spring 2007, undergraduate

**Dominican College, Adjunct Professor**

- Literary Braille and Instructional Strategies (VI 535), Fall 2013, Fall 2014-16, graduate, **online**
- Nemeth Code and Other Specialized Braille Codes (VI 538), Winter 2014-16, graduate, **online**

**Marshall University, Adjunct Professor**

- Math Methods for Visually Impaired (CIVI 600), Spring 2015-16, graduate, online

**George Mason University, Adjunct Professor**

- Braille Reading and Writing (EDSE 616), Spring 2015, graduate, online

**New Mexico State University, Adjunct Professor**

- Anatomy of the Eye (SPED 533), Summer 2011, graduate, **online**
- Instructional Strategies for Students with Visual Impairments (SPED 539), Spring 2011-12, graduate, **online**

**University of Northern Iowa, Adjunct Professor**

- Anatomy of the Eye and Educational Implications of Low Vision (SPED 4139/5138), Fall 2013, graduate, **online**

**West Virginia University, Adjunct Professor**

- Instructional Strategies for Students with Low Vision/Blindness (SPED 635), Spring 2012, graduate, **online**

**North Carolina Central University, Adjunct Professor**

- Advanced Seminar in Visual Impairments (EDEC 5513), Spring 2012/Spring 2014, graduate, **online**
- Psychosocial Implications of Blindness and Visual Impairment (EDEC 5610), Spring 2012, Fall 2013 graduate, **online**
- Introduction on Visual Impairments (EDEC 5501), Spring 2014, graduate, **online**
- Problems, Methods, and Materials (EDEC 5604), Spring 2016, graduate, **online**

**University of Nebraska, Adjunct Professor**

- Introduction to Eye Anatomy (SPED 847), Fall 2007/Fall 2009, graduate, **online**
- Foundations of Visual Impairments (SPED 846), Fall 2008, graduate, **online**

**University of Northern Colorado, Adjunct Professor**

- Mathematics and Students with Sensory Disabilities (EDSE 508), Summer 2008, graduate, **online**

*Professional Experience*

2005-06            **Graduate Assistant for Nora Griffin-Shirley, Texas Tech University.**

2005-07            **Graduate Assistant for Pat Kelley, Texas Tech University.**

*K-12 Teaching Experience*

2009-2018        **Certified Orientation and Mobility Consultant, Madison City School System, Madison, AL.**

2000-05            **Secondary Mathematics Teacher, Alabama School for the Blind.**

**Certifications**

- **Certified Orientation and Mobility Specialist (COMS)**
- **Class A: Special Education-Visual Impairments (P-12), Alabama**
- **Class B: Secondary Mathematics, Alabama**
- **National Library of Congress Certified Braille Transcriber, Literary**
- **UAH QEPO**

## **PUBLICATIONS**

### ***Books/ Chapters***

- Smith, D.W. (2017). Mathematics. In C. Holbrook, T. Wright, C. Kamei-Hannan (Eds.), *Foundations of education (3rd ed.): Volume II: Instructional strategies for teaching children and youths with visual impairments*. New York: AFB Press.
- Kelly, S. & Smith, D.W. (2016). Assistive technology. In S.Z. Sacks & M.C. Zatta (Eds.), *Keys to educational success: Teaching students with visual impairments and multiple disabilities*. New York: AFB Press.
- Smith, D.W., & Kelly, S. (2014). Assistive technology for students with visual impairments: A research agenda (pp. 23-53). In Debra Hatton (Vol. Ed.), *Current Issues in the Education of Students with Visual Impairments. International Review of Research in Developmental Disabilities*. Burlington: Academic Press.
- Smith, D.W. (2009). They say, Let us educate your children. In Tommy Hicks (Ed.), *Philosophy and Vain Deceit* (pp. 51-65). Lubbock, TX: Hicks Publications.
- Smith, D.W. (2008). *Assistive technology competencies for teachers of students with visual impairments: A Delphi study*. Unpublished doctoral dissertation, Texas Tech University, Lubbock.
- Griffin-Shirley, N., Grimmett, E.S., & Smith, D.W. (2008). Using strength-based planning for transitioning students with visual impairment. In Nora Griffin-Shirley, Roseanna Davidson, Michael Shaughnessy, Effie Laman, & DeAnn Lechtenberger (Eds.), *Strength-based planning for transitioning students with sensory impairments*. New York: Nova Publications.

### ***Refereed Journal Articles***

- Smith, D.W., Summers, E., & Brauner, D. (in preparation). Comparing tactile graphicacy using traditional tactile graphics versus augmented tactile overlays with iOS devices.
- Smith, D.W., & Kelly, S. (under review). Assistive technology research update: A synthesis of the research on assistive technologies from 2013 to 2019. *Journal of Visual Impairments & Blindness*.
- Guzman-Orth, D., Supalo, C., Smith, D.W., Okhee, L., & King, T. (accepted). Equitable STEM Instruction and Assessment: Accessibility and Fairness Considerations for Special Populations. *ETS Research Report Series*.
- Smith, D.W., Lampley, S.A., Dolan, B., Williams, G., Schleppebach, D., & Blair, M. (2020). Effect of 3D manipulatives students with visual impairments who are learning chemistry constructs: A pilot study. *Journal of Visual Impairments & Blindness*, 114(5), 370-381.
- Gorlewicz, J.L., Tennison, J.L., Uesbeck, P.M., Richard, M.E., Palani, H.P., Stefik, A., Smith, D.W., & Giudice, N.A. (2020). Design guidelines and implementation case studies with touchscreen-based graphics. *ACM Transactions on Accessible Computing*, 13(3), Article 10.

- Supalo, C.A, Bhattacharya, J., Steinberg, D., Smith, D.W. (2020). Overview of the proceedings of the 2019 Inclusion in Science, Learning a New Direction, Conference on Disability (ISLAND). *Journal of Science Education for Students with Disabilities*, 23(1), 1-7.
- Hairston, J.R., Williams, T., Smith, D.W., Sabados, W.T., & Forney, S. (2020). Teaching Cybersecurity to students with visual impairments and blindness. *Journal of Science Education for Students with Disabilities*, (23)1, 1-15.
- Tennison, J.L., Usebeck, P.M., Giudice, N.A., Stefik, A., Smith, D.W., & Gorlewicz, J.L. (2020). Establishing vibration-based tactile line profiles for use in multimodal graphics. *ACM Transactions on Applied Perception*, 17(2), Article 7.
- Kruemmling, B., Hayes, H., & Smith, D.W. (2017). Enriching doctoral-level preparation programs through a nationwide consortium model: The national leadership consortium in sensory disabilities. *Journal of Visual Impairments & Blindness*, 111(6), 557-567.
- Smith, D.W., & Rosenblum, L.P. (2013). The development of accepted performance items to demonstrate competence in the Nemeth Braille Code. *Journal of Visual Impairment & Blindness*, 107(3), 167-179.
- Zhou, L., Smith, D.W., Parker, A.T., & Griffin-Shirley, N. (2013). The relationship between self-perceived computer competence and employment outcome of transition-age youths with visual impairments. *Journal of Visual Impairment & Blindness*, 107(1), 43-53.
- Zhou, L., Ajuwon, P.M., Smith, D.W., Griffin-Shirley, N., Parker, A. T., & Okungu, P. (2012). Assistive technology competencies for teachers of students with visual impairments: A national study. *Journal of Visual Impairment & Blindness*, 106(10), 656-665.
- Smith, D.W., & Smothers, S. (2012). The role and characteristics of tactile graphics in secondary mathematics and science textbooks in braille. *Journal of Visual Impairment & Blindness*, 106(9), 543-554.
- Pogrud, R., & Smith, D.W. (2012). Impact of a short-term training model on assistive technology for preservice teachers of students with visual impairments. *Insight: Research and Practice in Visual Impairment & Blindness*, 5(2), 100-110.
- Zhou, L., Griffin-Shirley, N., Kelly, P.A., Banda, D., Lan, W., Parker, A.T., & Smith, D.W. (2012). The relationship between computer and internet use and standardized test performance of secondary school students with visual impairments. *Journal of Visual Impairment & Blindness*, 106(10), 609-621.
- Rosenblum, L.P., & Smith, D.W. (2012). Instruction in specialized braille codes, abacus, and tactile graphics at universities in the United States and Canada. *Journal of Visual Impairment & Blindness*. 106(6), 339-350.
- O'Brien, J.L., & Smith, D.W. (2012). To share or not to share: The "Pothead" notebook and FERPA. *Journal of Cases in Educational Leadership*, 15(2), 41-47
- Smith, D.W., & Amato, S. (2012). Accommodations for students with visual impairments on high-stakes tests. *Journal of Visual Impairment & Blindness*, 106(5), 299-304.

- Zhou, L., Smith, D.W., Parker, A.T., & Griffin-Shirley, N. (2011). Assistive technology competencies of teachers of students with visual impairments: A comparison of perceptions. *Journal of Visual Impairment & Blindness*, 105(9), 533-547.
- Beal, C. R., Rosenblum, L.P., & Smith, D.W. (2011). A pilot study of a self-voicing computer program for pre-algebra math problems. *Journal of Visual Impairment & Blindness*, 105(3), 157-169.
- Kelly, S., & Smith, D.W. (2011). Assistive technology used by students with visual impairments: A review of 35 years of the literature. *Journal of Visual Impairment & Blindness*, 150(2), 73-83.
- Zhou, L., Parker, A.T., Smith, D.W., & Griffin-Shirley, N. (2011). Assistive technology for students with visual impairments: Challenges and needs in teachers' preparation programs and practice. *Journal of Visual Impairment & Blindness*, 105(4), 197-210.
- Smith, D.W., Kelley, P.A., Maushak, N., Griffin-Shirley, N., & Lan, W.Y. (2009). Assistive technology competencies for teachers of students with visual impairments: A Delphi study. *Journal of Visual Impairment & Blindness*, 103(8), 457-469.
- Sahfi, M.Y., Zhou, L., Smith, D.W., Kelley, P.A. (2009). A survey of the integration of assistive technology knowledge into international teacher training programs for individuals with visual impairments. *Journal of Visual Impairment & Blindness*, 103(9), 562-568.
- Griffin-Shirley, N., Pogrund, R.L., & Smith, D.W. (2009). A three-phase qualitative study of dual-certified vision education professionals in the Southwest. *Journal of Visual Impairment & Blindness*, 103(6), 354-366.
- Smith, D.W., Griffin-Shirley, N., Pogrund, R.L., Lan, W., Dignan, K.C., & Marsh, R.A. (2007). A survey of dual-certified vision professionals in Texas. *RE:view*, 39(1), 15-25.
- Smith, D. W., & Kelley, P.A. (2007). A survey of the integration of assistive technology knowledge into teacher preparation programs for individuals with visual impairments. *Journal of Visual Impairment & Blindness*, 101(7), 429-433.
- Smith, D.W. (2006). Developing mathematical concepts for students with visual impairments and blindness through orientation and mobility. *RE:view*, 37(4), 161-165

### ***Refereed Conference Papers***

- Smith, D.W. (2017). Moving on, moving out in education and Employment: Focusing on authentic mathematics through orientation and mobility. In *16<sup>th</sup> International Mobility Conference Proceedings, Dublin, Ireland*.
- Zollars, R., Hundhausen, C., & Smith, D.W. (2015). Assessing studio-based learning in a material/energy balance classes. In *American Society for Engineering Education Annual Conference & Exposition Proceedings, Seattle, WA, USA*.
- Smith, D.W., & Kelly, S. (2014). A research agenda for assistive technology used by students with visual impairments. In *Journal on Technology and Persons with Disabilities*. San Diego, CA, USA.

Smith, D.W., Dillihunt, M.L., Farrington, P.A., Benfield, M.P.J., & Turner, M.W. (2012). Impact of Integrated Product Team course on skill development and workplace preparation for graduating engineering seniors. In *American Society for Engineering Education Annual Conference & Exposition Proceedings*. San Antonio, TX, USA.

Dillihunt, M.L., Smith, D.W., Farrington, P.A., Turner, M.W., & Benfield, M.P.J. (2012). Impact of Innovative Student Project for the Increased Recruitment of Engineering and Science Students (InSPIRESS). In *American Society for Engineering Education Annual Conference & Exposition Proceedings*. San Antonio, TX, USA.

Stefik, A., Hundhausen, C.D., & Smith, D.W. (2011). On the design of an educational infrastructure for the blind and visually impaired in computer science. In *Proceedings ACM SIGSCE 2011*. Dallas, TX, USA.

### **Curricula**

Smith, D.W., & Wicker, J. (under review). *MathBuilders-Unit 2: Number Concepts*. Louisville, KY: American Printing House for the Blind.

Smith, D.W., & Wicker, J. (under review). *MathBuilders-Unit 3: Place Value*. Louisville, KY: American Printing House for the Blind.

Smith, D.W., & Wicker, J. (under review). *MathBuilders-Unit 4: Number Operations*. Louisville, KY: American Printing House for the Blind.

Smith, D.W., & Wicker, J. (2013). *MathBuilders-Unit 5: Measurement*. Louisville, KY: American Printing House for the Blind.

Smith, D.W., & Wicker, J. (2011). *MathBuilders-Unit 7: Fractions, mixed numbers, and decimals*. Louisville, KY: American Printing House for the Blind.

Smith, D.W., & Wicker, J. (2009). *MathBuilders-Unit 8: Data collection, graphing, and probability/statistics*. Louisville, KY: American Printing House for the Blind.

Smith, D.W., & Wicker, J. (2007). *MathBuilders-Unit 6: Geometry*. Louisville, KY: American Printing House for the Blind.

### **Non-Refereed Articles and Activities**

Smith, D.W. (2013). New research and development of software to support math education. *The Driving Force: AER Itinerant Personnel News Journal*, 20(4), 3-4.

Smith, D.W. (2012). This mattered to me. *Journal of Visual Impairment & Blindness*, 106(7), 440-442.

Smith, D.W. (2011). Issues of assistive technology in personnel preparation programs. *DVIQuarterly*, 56(3), 26-27.

Smith, D.W. (Guest Editor). (2010). Special issue on "The Future of the Field". *DVIQuarterly*, 55(3).

Smith, D.W., & Wild, T. (2006). Least restrictive environment for students with visual impairments: Issue brief. *Journal of Visual Impairment & Blindness*, 100(10), 592-593.

Smith, D.W. (Guest Editor). (2004). Special issue on secondary education. *DVIQuarterly*, 50(1).

Smith, D.W. (2003). Presenting for the first time. *DVIQuarterly*, 48(4), 13-14.

Smith, D.W. (2003). Technology of tomorrow...today! *DVIQuarterly*, 48(3), 5-7.

Smith, D.W. (2002). The typical responses. *DVIQuarterly*, 48(1), 12-13.

Smith, D.W. (2002). My inaugural CEC annual international convention. *DVIQuarterly*, 47(4), 53-54.

### **Reviews**

Smith, D.W. (2008). Book review of *Mathematics Made Easy for Children with Visual Impairment*. *RE:view*, 39(3), 149-152.

Smith, D.W. (2008). Conference review of the 2008 Council for Exceptional Children Convention and Expo. *Journal of Visual Impairment & Blindness*, 102(5), 307-310.

## **PRESENTATIONS**

### **Invited**

Smith, D.W. (November, 2019). *Numeracy for Students with Visual Impairments*. 31<sup>st</sup> Annual Unity Conference, Nashville, TN.

Smith, D.W. (June, 2019). *Collaborative Teaching Mathematics as a TVI*. AIDB SOAR Conference, Talladega, AL.

Smith, D.W. (October, 2018). *The Roots of a Strong Profession*. AER of Ohio State Conference, Mt. Sterling, OH.

Smith, D.W. (October, 2017). *Nemeth Code Review 1: A Refresher Course on Common Nemeth Code*. Indiana PASS Project, Indianapolis, IN.

Smith, D.W. (May, 2017). *Tools of the Trade: Infusing Technology and Manipulatives into Math and Science Education for Students with Visual Impairments*. Indiana PASS Project, Indianapolis, IN.

Smith, D.W. (October, 2016). *Unraveling Nemeth Code*. Invited Session at the Alabama AER Conference, Mobile, AL.

Smith, D.W. (October, 2015). *The Future of the Field*. Invited Closing Session at the Alabama AER Conference, Ivy Green, AL.



- Smith, D.W. (October, 2014). Breakout Session: *The Literacy of Numbers: Focusing on Numeracy with Students with Visual Impairments*. Invited presentation at the West Virginia Conference for Educators of Students with Sensory Impairments, Romney, WV.
- Smith, D.W. (July, 2014). Keynote Opening Session: *Critical Emerging Issues in Special Education of Students with Visual Impairments and Visual Impairments*. Invited presentation at the West Virginia Association for the Education and Rehabilitation of the Blind and Visually Impaired Conference, Terra Alta, WV.
- Smith, D.W. (July, 2014). Breakout Session: *Teaching Common Core State Math Standards to Students with Visual Impairments*. Invited presentation at the West Virginia Association for the Education and Rehabilitation of the Blind and Visually Impaired Conference, Terra Alta, WV.
- Smith, D.W. (December, 2013). Showcase Session: *The Literacy of Numbers: A Case for Strengthening Numeracy in Students with Visual Impairments*. Invited presentation at the 11th Biennial Getting in Touch with Literacy Conference, Providence, RI.
- Smith, D.W. (October, 2012). Keynote Presentation: *Assistive Technology Competencies for TVIs*. Invited presentation at the Tennessee School for the Blind Unity Conference, Nashville, TN.
- Smith, D.W. (October, 2012). *Collaborative Relationships Between Math Educators and TVIs*. Invited presentation at the Tennessee Association for the Education and Rehabilitation of the Blind and Visually Impaired Conference, Nashville, TN.
- Sewell, D., Smith, D.W., Wright, L., Henderson, B., & Wicker, J. (October, 2012). *Math: Always Needs More Than the Extra Mile*. Invited presentation at the American Printing House for the Blind, Annual Meeting, Louisville, KY.
- Smith, D.W. (March, 2012). *Teaching Algebra and Geometry to Students with Visual Impairments*. Invited presentation at the North Carolina Conference on Visual Impairment and Blindness, Raleigh, NC.
- Smith, D.W. (November, 2010). *Issues and Strategies for Teaching Mathematics to Students with Visual Impairments*. Invited presentation at the 45<sup>th</sup> Annual Exceptional Children's Conference, Louisville, KY.
- Smith, D.W. (November, 2010). *Tactile Graphicacy: Teaching Students with Visual Impairments to Understand Tactile Graphics*. Invited presentation at the 45<sup>th</sup> Annual Exceptional Children's Conference, Louisville, KY.
- Smith, D.W. (October, 2010). *American Pi! Teaching Mathematics to Students with Visual Impairments*. Invited presentation at the American Printing House for the Blind Annual Meeting, Louisville, KY.
- Smith, D.W. (June, 2010). *The Mathematics of Movement: O&M and Math Education*. Invited presentation at the 2010 Texas Focus Conference, Plano, TX.
- Smith, D.W. (June, 2010). *APH MathBuilders and Geometro*. Invited presentation at the 2010 Texas Focus Conference, Plano, TX.

- Smith, D.W. (October, 2009). *New Tools for the New School Year-MathBuilders and Geometro*. Invited presentation at the American Printing House for the Blind Annual Meeting, Louisville, KY.
- Wicker, J., & Smith, D.W. (October, 2009). *Math Products-Coming Soon to a Classroom Near You!* Invited presentation at the American Printing House for the Blind Annual Meeting, Louisville, KY.
- Wicker, J., & Smith, D.W. (October, 2008). *MathBuilders: A Supplemental Math Program for Braille Users (K-3)*. Invited presentation at the American Printing House for the Blind Annual Meeting, Louisville, KY.
- Wicker, J., & Smith, D.W. (October, 2007). *MathBuilders: A Supplemental Math Program for Braille Users (K-3)*. Invited presentation at the American Printing House for the Blind Annual Meeting, Louisville, KY.

### ***Refereed***

- GORLEWICZ, J.L., TENNISON, J.L., UESBECK, P.M., RICHARD, M.E., PALANI, H.P., STEFIK, A., SMITH, D.W., & GIUDICE, N.A. (October, 2020). Design guidelines and implementation case studies with touchscreen-based graphics. ACM ASSETS Conference, Virtual.
- HAIRSTON, J.R., WILLIAMS, T., & SMITH, D.W. (October, 2019). *Accessible Accommodations for Learning Cybersecurity*. Presented at ISLAND 2019 Conference, Huntsville, AL.
- SMITH, D.W. (October, 2018). *Numeracy: The Importance of Math Literacy from Birth to Death*. Presented at the AER of Ohio State Conference, Mt. Sterling, OH.
- SCHLEPPENBACH, D., & SMITH, D.W. (January, 2015). *Solving Math Input and Online Learning with MathHear*. Presented at the Assistive Technology Industry Association Conference, Orlando, FL.
- SMITH, D.W. (July, 2014). *Exploring Online Algebra One Course for Students with Visual Impairments*. Presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, San Antonio, TX.
- SUMMERS, E., BRAUNER, D., & SMITH, D.W. (July, 2014). *Indoor navigation: A glimpse of the future*. Presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, San Antonio, TX.
- KELLY, S. & SMITH, D.W. (April, 2014). *Assistive Technology Essentials for Students with Visual Impairments & Additional Disabilities*. Presented at the 29th Annual International Technology and Persons with Disabilities Conference, San Diego, CA.
- KELLY, S. & SMITH, D.W. (April, 2014). *Assistive Technology for Students with Visual Impairments: A Research Agenda*. Presented at the 29th Annual International Technology and Persons with Disabilities Conference, San Diego, CA.
- SMITH, D.W. (January, 2013). *National Study on Teachers of Students with Visual Impairments Assistive Technology Competence*. Presented at the Assistive Technology Industry Association Conference, Orlando, FL.

- Smith, D.W., Griffin-Shirley, N., Okungu, P., Zhou, L., Ajuwon, P., Parker, A.T. (July, 2012). *Assistive Technology Competencies for Teachers of Students with Visual Impairments: A National Study*. General Session Keynote presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, Bellevue, WA.
- Rosenblum, L.P., & Smith, D.W. (July, 2012). *On the Road to Developing Nemeth Code Braille Code Competencies for Beginning TVIs: Findings of a Two-Part Study*. Presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, Bellevue, WA.
- Smith, D.W., & Amato, S. (April, 2011). *Synthesis of Available Accommodations for Students with Visual Impairments on Standardized Assessments*. Presented at the Council for Exceptional Children Convention and Expo, National Harbor, MD.
- Zhou, L., Parker, A.T., Smith, D.W., & Griffin-Shirley, N. (April, 2011). *Assistive Technology Competencies Perceived and Possessed by Teachers of the Visually Impaired*. Presented at the Council for Exceptional Children Convention and Expo, National Harbor, MD.
- Smith, D.W., Zhou, L., & Parker, A.T. (October, 2010). *Assistive Technology Competencies for Teachers of Students with Visual Impairments: Validation Study*. Presented at the Assistive Technology Industry Association Conference, Chicago, IL.
- Smith, D.W. (April, 2009). *Equality in Mathematics for Students with Blindness and Visual Impairments*. Presented at the National Council for Teachers of Mathematics Convention and Expo, Washington, D.C.
- Smith, D.W. (April, 2009). *Assistive Technology Competencies for Teachers of Students with Visual Impairments: A Delphi Study*. Presented at the Council for Exceptional Children Conference and Expo, Seattle, WA
- Smith, D.W. (July, 2008). *Assistive Technology: Competencies and Courses (NCLVI Showcase)*. Presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, Chicago, IL.
- Smith, D.W., Kelley, P.A., Griffin-Shirley, N., Maushak, N., & Lan, W. (July, 2008). *Assistive Technology Competencies for Teachers of Students with Visual Impairments: A Delphi Study*. Presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, Chicago, IL.
- Pogrand, R.L., Griffin-Shirley, N., & Smith, D.W. (July, 2008). *Qualitative Study of the Effectiveness of the Dual-Certified Vision Professional Service Delivery Model*. Presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, Chicago, IL.
- Sahfi, M., Zhou, L., Smith, D.W., & Kelley, P.A. (July, 2008). *Assistive Technology in Teacher-Training Programs: A National and International Perspective*. Presented at the Association for the Education and Rehabilitation of the Blind and Visually Impaired International Conference, Chicago, IL.

- Griffin-Shirley, N., Poggrund, R.L., Smith, D.W., & Duemer, L. (April, 2008). *A three-phase qualitative study of dual-certified vision education professionals in the Southwest*. Presented at the Texas Tech University College of Education Spring Research Conference, Lubbock, TX.
- Smith, D.W., & Kelley, P.A. (April, 2008). *Assistive Technology Integration into Teachers of Students with Visual Impairments University Programs*. Presented at the International Council for Exceptional Children Convention, Boston, MA.
- Griffin-Shirley, N., Poggrund, R.L., & Smith, D.W. (April, 2007). *Qualitative Study of the Effectiveness of the Dual-Certified Service Delivery Model*. Presented at the International Council for Exceptional Children Convention, Louisville, KY.
- Kelley, P., & Smith, D.W. (April, 2007). *Assistive Technology for Teaching in Inclusive Classroom*. Poster presented at the International Council for Exceptional Children Convention, Louisville, KY.
- Maushak, N., Kelley, P., & Smith, D.W. (April, 2007). *ATTIC: Assistive Technology for Teaching in the Inclusive Classroom*. Presented at the Society for Information Technology and Teacher Education Conference, San Antonio, TX.
- Poggrund, R.L., Griffin-Shirley, N., & Smith, D.W. (March, 2007). *The Effectiveness of the Dual-Certified Vision Professional Service Delivery Model: A Qualitative Study*. Presented at the Texas Association for the Education and Rehabilitation of the Blind and Visually Impaired Conference, Austin, TX.
- Smith, D.W. (September, 2006). *A qualitative study of the effectiveness of the dual-certified vision professional service delivery model*. Presented at the NCLID Fourth Research Summit on Low-Incidence Disabilities, Research in the Rockies Conference, Vail, CO.
- Smith, D.W. (March, 2006). *Closing the gap for students with visual impairments: A case study*. Presented at the Texas National Association for Multicultural Education (NAME) Conference, Lubbock, TX.
- Smith, D.W. (April, 2005). *Algebra and geometry for students with visual impairments and blindness*. Presented at the National Council for Teachers of Mathematics Annual Convention, Anaheim, CA.
- Smith, D.W. & Amato, S. (April, 2004). *Strategies for teaching algebra and geometry to students with visual impairments and blindness*. Presented at the International Council for Exceptional Children Convention, New Orleans, LA.
- Smith, D.W. (April, 2003). *Strategies for teaching mathematics to visually impaired and blind students*. Presented at the International Council for Exceptional Children Convention, Seattle, WA.
- Smith, D.W. (November, 2002). *Teaching mathematics to students with visual impairments and blindness*. Presented at the Alabama Council for Teachers of Mathematics Convention, Montgomery, AL.

### ***Invited Workshops***

Smith, D.W. (January, 2020). Evidenced-Based Interventions for Math. Georgia Academy for the Blind, Macon, GA.

Smith, D.W. (October, 2013). National Instructional Partnership Workshop on Mathematics. Nebraska School for the Blind and Visually Impaired, Omaha, NE.

Smith, D.W. (February, 2013). National Instructional Partnership Workshop on Mathematics. Tennessee School for the Blind, Nashville, TN.

Smith, D.W. (June, 2012). *Nemeth Code by the Numbers*. Invited presentation at the Alabama Chapter of AER "Teach the Teachers" Conference, Talladega, AL.

Smith, D.W. (December, 2011). *Working with the Experts: Math Strategies and Tools for Students with Visual Impairments*. Invited presentation at the Florida Working with the Experts, Daytona, FL.

Smith, D.W. (October, 2009). *Math Counts! Instruction for Students who are Blind/Visually Impaired*. Invited workshop at the Colorado Department of Education Conference on Visual Impairments. Denver, CO.

## **PROFESSIONAL ACTIVITIES**

### ***Affiliations and Leadership Roles***

Council for Exceptional Children (CEC), 2001-present

- Representative Assembly Committee, 2008-2010
  - Chair, 2010-2011

CEC Division on Visual Impairments and Deafblindness (DVIDB), 2001-present

- Past-President, 2014-2015
- President, 2012-2013
- President-Elect, 2010-2011
- Representative, 2007-2010
- Treasurer, 2005-2006
- Director, 2004
- Student Ambassador, 2002-2003
- Webmaster, 2007-2014
- Committees: Awards (chair, 2014-15), Elections (chair, 2014-15)

CEC Technology and Media Division (TAM), 2006-present

Alabama Federation Council for Exceptional Children, 2008-present

- Treasurer, 2009-2011

Association for the Education and Rehabilitation of the Visually Impaired and Blind (AER), 2001-present

- International Board of Directors, Region 5 Representative, 2020-2022
- International Publications Committee Member, 2008-present
- International University Standards Review Committee, 2010-2014
- Alabama AER Director, 2018-2020

National Council for Teachers of Mathematics (NCTM), 2000-present

Kappa Delta Pi Honor Society for Education, Nu Sigma Chapter, 2006-present  
Computer Science Teachers Association (CSTA), 2012-present  
American Society for Engineering Education (ASEE), 2011-2013  
Association for Supervision and Curriculum Development (ASCD), 2014-present

### **Service (University)**

- UAH Faculty 180 Governance Committee, Co-Chair, 2019-present
- UAH Presidential Search Advisory Committee, 2018-2019
- UAH Affirmative Action Committee, 2017-2020
- UAH SACSCOC Education Program Committee, 2014-2015
- UAH Title XI Committee, 2014-2019
- UAH Faculty Senate Representative for Department of Education, 2012-2015
  - Undergraduate Curriculum Committee, 2012-2015
    - Chair, 2013-2014
  - Faculty Senate Honors Council Representative
  - LMS Task Force Faculty Senate Representative, 2013-2014
  - Enrollment Management Committee Faculty Senate Representative, 2013
- UAH Faculty Advisor Kappa Delta Pi Chapter, 2012-2014
- UAH Faculty Advisor Student Council for Exceptional Children, 2008-2012

### **Service (Field)**

- Associate Editor (STEM education), *Journal of Visual Impairment & Blindness*, 2015-present
- National Leadership Consortium in Sensory Disabilities, Management Team, 2015-present
- Peer Reviewer, *Journal of Visual Impairment and Blindness*, 2005-2015
- Peer Reviewer, *Insight: Practice and Research in Visual Impairment*, 2009-2012
- Peer Reviewer, *Journal of Special Education Technology*, 2006-present
- Reviewer for Council for Exceptional Children (DVI) conference presentations, 2003-2012
- Webmaster for CEC-DVI, 2007-2012
- Doctoral Committee Member:
  - Li Zhou, Texas Tech University, 2010
  - Mohammad Sahfi, Texas Tech University, 2011
  - Tara Mason, Texas Tech University, 2014
  - Moumita Tabassum, University of Alabama, present

### **Service (Community)**

- Smokey Powell Center for Assistive Technology Advisory Board, 2014-2019
- Quorum Outreach and Research Foundation (QORF), Founding Board Member, 2013-present

### **Research and Teaching Grants**

- **U.S. Department of Education, Office of Special Programs** (\$1,029,438), PI, "Project VIABLE: Visual Impairment and Applied Behavior Learning Experiences", 2020-2024.
- **National Science Foundation** (\$64,947), PI, "Perceptual and Implementation Strategies for Knowledge Acquisition of Digital Tactile Graphics for Blind and Visually Impaired Students", 2017-2020.
- **University of Alabama in Huntsville Research Infrastructure Funds (RIF) grant** (\$5,245), PI, "Establishment of the STEM-VI Mathematics Research Laboratory Infrastructure", 2014.

- **University of Alabama in Huntsville Individual Investigator Distinguished Research (IIDR)** grant (\$11,000), PI, "Investigating Audio Embossed Graphic Images for Individuals with Visual Impairments and Blindness", 2013-2014.
- **National Science Foundation** (\$300,000), PI, "EAGER: Promoting algebra learning through an accessible expression system for students with visual impairments and blindness", 2012-2014.
- **University of Alabama in Huntsville Junior Faculty Distinguished Research (JFDR)** Grant, PI, (\$9,482). "The Characteristics and Role of Tactile Graphics in Secondary Mathematics and Science Textbooks in Braille", 2010-11.
- **New Mexico School for the Blind and Visually Impaired Collaborative Project Grant**, PI, (\$20,000). "The Impact of the System for Conceptualizing Spatial Concepts (SC)<sup>2</sup> on Science and Mathematics Content", 2010-11.
- **Alabama State Department of Education State Personnel Development Grant**, Co-PI with Dr. Monica Dillihunt (\$15,000). "Collaboration in Secondary Education", 2009.
- **University of Alabama in Huntsville Instructional Improvement** Grant, PI, (\$2,950). "ATTICC: Assistive Technology for Teaching In Collaborative Classrooms", 2009.

### **Professional and Research Projects**

#### In-Progress

- Tactile Graphicacy Consortium, research lead, 2019-present
- American Printing House for the Blind (APH), consultant, development of *MathBuilders*: Number Operations/Number Concepts/Place Value units for students with blindness.

#### Completed

- Ohio State University, Engineering Education for Students with Visual Impairments, math consultant, 2016-2018.
- Texas School for the Blind and Visually Impaired, math consultant, development of an online Nemeth Code Training Course, 2016-2018.
- UAH, PI, NSF Grant, "EAGER: Promoting algebra learning through an accessible expression system for students with visual impairments and blindness", 2012-2014, \$300,000.
- UAH College of Engineering and Center for Modeling, Simulation, and Analysis research project, "Impact of Innovative Student Project for the Increased Recruitment of Engineering and Science Students (InSPIRESS)", 2010-present.
- UAH, PI, UAH IIDR Grant, " Investigating Audio Embossed Graphic Images for Individuals with Visual Impairments and Blindness", 2013-2015.
- University of Southern Illinois-Edwardsville, external project evaluator, NSF Grant, "Collaborative Research: BPC-DP: Building an Educational Infrastructure for Students at K-12 Schools for the Blind to Broaden Participation in Computing", 2010-2012.
- Washington State University, external project evaluator, NSF Grant, "Exploring Studio-Based Learning in Chemical Engineering Education", 2011-2013.
- University of Arizona, external mathematics advisor, IES grant, AnimalWatch-VI Suite: A comprehensive program to increase access to science and math for students with visual impairments", 2012-2015.
- Friends of the North Carolina Museum of Natural Sciences, Sparks! Ignition Grant, "Enhancing the museum experience for visitors with visual impairments and blindness", 2013-2014.

- UAH College of Engineering and Center for Modeling, Simulation, and Analysis research project, “Impact of Integrated Product Team (IPT) course on skill development and workplace preparation for graduating seniors in MAE and ISEEM.”, 2010-2013
- New Mexico School for the Blind and Visually Impaired, collaborative research project, NMSBVI Foundation grant, “The Impact of the System for Conceptualizing Spatial Concepts (SC)<sup>2</sup> on Science and Mathematics Content”, 2010-2012.
- University of Arizona, collaborative project, “Examination of Requirements Used in the Preparation of Teachers of Students with Visual Impairments in the United States and Canada”, 2010-2011.
- University of Arizona, external project evaluator, NSF Grant “Supporting STEM access for K12 students who are blind through adaptive math tutoring technology”, 2009-2010.
- Hadley School for the Blind, consultant, on “Essentials of the Nemeth Code” course.
- Touch Graphics Teacher Collaborative Group. The OSEP funded grant field-tested the product (the Talking Tactile Tablet) and develop reusable tactile graphics, 2004-2005.

### **HONORS AND AWARDS**

- *Alumni of the Year*, Faulkner University, 2013.
- *Alumni of the Year*, Department of Special Education, Leadership, Technology, and Foundations, University of Alabama at Birmingham, 2008
- *National Dissertation of the Year*, Council for Exceptional Children Division on Visual Impairments, 2008
- *Outstanding Doctoral Student of the Year*, Texas Tech University College of Education, 2007
- National Center for Leadership in Visual Impairments (NCLVI) Fellowship, \$20,720 plus tuition/year, 2005-present.
- Helen DeVitt Jones Graduate Fellowship, Texas Tech University, \$10,550/year, 2005-present.
- *Virginia Sowell Student of the Year Award*, Council for Exceptional Children Division on Visual Impairments, 2003
- Alabama AER/UAB Student Membership Award, 2001

### **SKILLS AND ABILITIES**

- Computer Software Skills: Faculty180, TK20, SPSS, NVivo, Blackboard, Canvas, Moodle, Macromedia Dreamweaver and Captivate, and Microsoft Office Suite
- Basic American Sign Language

### **REFERENCES**

Dr. Brooke Krueemling, Assistant Provost, Director of the National Leadership Consortium in Sensory Disabilities, Salus University, 8360 Old York Road, Elkins Park, PA 19027  
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Dr. Nora Griffin-Shirley, Professor, Texas Tech University, Box 41071, Lubbock, TX 79409;  
Tel: (806) 742-1997 ext. 247. Email: [n.griffin-shirley@ttu.edu](mailto:n.griffin-shirley@ttu.edu)

Dr. Tiffany Wild, Associate Professor, Department of Teaching and Learning, The Ohio State University. Tel: (614) 292-4783. Email: [wild.13@osu.edu](mailto:wild.13@osu.edu)