Nicolette Sammarco Caldwell, Ph.D., BCBA-D
Ball State University
Nicolette.caldwell@bsu.edu

## Current Positions

Associate Teaching Professor of Applied Behavior Analysis — August 2024-Present
Ball State University

## Education

Ph.D. in Special Education — 2020
University of Texas at Austin, College of Education
*Areas of Emphasis:* Autism and Developmental Disabilities, Early Childhood Special Education *Program Mentor:* Mark O'Reilly
*Dissertation Title:* A Pilot Randomized Controlled Trial of Imitation Intervention on Generalized Imitation in Young Children with Autism Spectrum Disorder. *Dissertation Chair*: Micheal Sandbank

M.Ed. in Special Education — 2013
University of Texas at Austin, College of Education
*Area of Emphasis:* Autism and Developmental Disabilities

B.A. in Spanish — 2008
University of Arkansas, Little Rock
*Minor*: International Studies

## Certifications

Board Certified Behavior Analyst — 2013-Present
-*Doctoral* — 2020
Certification Number: 1-13-14986

## Teaching Experience

### Course Development

University of Arkansas, Early Childhood Special Education — 2022-2023
Graduate Level Endorsement Curriculum

SPED 5013: Introduction to ECSE
SPED 5023: Inclusive Practices in ECSE

SPED 5033: Family & Professional Partnerships in ECSE
SPED 5043: Assessment & Programming in ECSE

**University Teaching Experience**

Instructor of Record +Graduate Level *Online.

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| SPCE 630: Research Methods for Behavior Analysis*+ | 2024 |
| SPCE 609: Introduction to Applied Behavior Analysis*+ | 2024 |
| SPED 5043: Assessment & Programming in ECSE*+ | 2023 |
| SPED 5023: Inclusive Practices in ECSE*+ | 2023 |
| SPED 5013: Introduction to ECSE*+ | 2023 |
| SPED 4583: Special Education Research | 2022 |
| SPED 6873: Measurement and Experimental Design*+ | 2021-2022 |
| SPED 4538: Special Education Internship (K-6) | 2019-2021 |
| SPED 4568: Special Education Internship (7-12) | 2019-2021 |
| SPED 5783: Professional and Family Partnerships*+ | 2020 |
| SPED 5733: Inclusive Practices for Diverse Populations*+ | 2020 |
| SPED 4493: Introduction to ASD | 2020 |
| CIED 3023: Survey of Exceptionality* | 2019 |

Teaching Assistant

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| ALD 322: Individual Differences | 2016-2017 |
| SED 394: Practicum in SPED: Professional and Ethical Practice | 2015-2016 |

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**Professional Experience**

Program Director – ECSE Pre-K Endorsement Academy 2022-2024
University of Arkansas, Department of Curriculum and Instruction

Postdoctoral Research Fellow 2023-2024
University of Arkansas, NSF Convergence Accelerator

Research Associate - Clinical Services Specialist 2022-2023
University of Arkansas, Arkansas Autism Partnership

Internship Supervisor – Special Education 2019-2022
University of Arkansas, Department of Curriculum and Instruction

Adjunct Professor – Special Education 2019-2022
University of Arkansas, Department of Curriculum and Instruction

Parent Training – Research Assistant 2017-2019
UT Texas Center for Disability Studies

BCBA –School, Home, & Clinic 2013-2019

Autism Spectrum Instructional Resources

BCBA/Consultant –Early Intervention Program 2012-2019
Easter Seals, Bluebonnet Trails, ATCIC

Literacy Research Assistant – Del Valle Elementary School 2012-2013
UT Meadows Center for Preventing Educational Risk

Special Education Teacher and Parent Training 2009-2011
US Peace Corps - Ecuador

Paraprofessional 2008-2009
Holt Middle School, Fayetteville, AR

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## Research and Scholarly Activity

### Grant Funding

**Caldwell**, N. (Principal Investigator) Early Childhood Pre-K Special Education Teacher Academy. Arkansas Department of Education. Funded for January 2024-December 2024, $249,980

**Caldwell**, N. (Principal Investigator) Early Childhood Pre-K Special Education Teacher Academy. Arkansas Department of Education. Funded for January 2023-December 2023, $194,780

### Peer-Reviewed Publications

Griffen, B., Lorah, E., Holyfield, C., & **Caldwell**, N. (2024). Evaluating artificial intelligence on the efficacy of preference assessments for preservice speech-language pathologists. *Journal of Developmental and Physical Disabilities*. Advance online publication. https://doi.org/10.1007/s10882-024-09976-2

**Caldwell**, N., Holyfield, C., Lorah, E., & Rackensperger, T. (2024). Reducing linguistic profiling of individuals with communication disabilities in the workplace: avoiding assumptions based on speech, language, and communication mode. *Career Development International, 29*(3), 367-380.

Sandbank, M., Pustejovsky, J.E., Bottema-Beutel, K., **Caldwell**, N., Feldman, J.I., Crowley LaPoint, S., & Woynaroski, T. (2024). Determining Associations Between Intervention Amount and Outcomes for Young Autistic Children: A Meta-Analysis. *JAMA pediatrics*, *178*(8), 763–773.

Sandbank, M., Bottema-Beutel, K., Syu, Y., **Caldwell**, N., Feldman, J., & Woynaroski, T. (2024). Evidence-b(i)ased practice: Selective and inadequate reporting in early

childhood autism intervention research. *Autism: the international journal of research and practice, 28*(8), 1889-1901.

Holyfield, C., MacNeil, S., **Caldwell**, N., O'Neill Zimmerman, T., Lorah, E., Dragut, E., & Vucetic, S. (2024). Leveraging communication partner speech to automate augmented input for children on the autism spectrum who are minimally verbal: Prototype development and preliminary efficacy investigation. *American Journal of Speech-Language Pathology, 33*(3), 1174-1192.

**Caldwell**, N., Holyfield, C., & Zimmerman, T.O. (2024). Effects of interaction approaches and added high-tech augmentative and alternative communication on prelinguistic and linguistic communication from school-age beginning communicators. *Folia Phoniatrica et Logopaedica: official organ of the International Association of Logopedics and Phoniatrics (IALP), 76*(3), 281-294.

Sandbank, M., Bottema-Beutel, K., Crowley LaPoint, S., Feldman, J. I., Barrett, D. J., **Caldwell**, N., Dunham, K., Crank, J., Albarran, S., & Woynaroski, T. (2023). Autism intervention meta-analysis of early childhood studies (Project AIM): updated systematic review and secondary analysis. *BMJ (Clinical research ed.), 383*, e076733.

Griffen, B., Lorah, E., **Caldwell**, N., Hantula, D., Nosek, J., Tincani, M., & Lemley, S. (2023). The effects of artificial intelligence on implementors' fidelity of instructional strategies during handwashing acquisition in children with autism. *Journal of Developmental and Physical Disabilities*. Advance online publication. https://doi.org/10.1007/s10882-023-09937-1

Griffen, B., Holyfield, C., Lorah, E., & **Caldwell**, N. (2023). Increasing linguistic and prelinguistic communication for social closeness during naturalistic AAC instruction with young children on the autism spectrum. *Augmentative and Alternative Communication,* 1-14. Advance online publication. https://doi.org/10.1080/07434618.2023.2283846

Lorah, E., Holyfield, C., Griffen, B., & **Caldwell**, N. (2022). A systematic review of evidence-based instruction for individuals with autism using mobile augmentative and alternative communication technology. *Review Journal of Autism and Developmental Disorders, 11*(1), 210-224. https://doi.org/10.1007/s40489-022-00334-6

Gevarter, C., O'Reilly, M. F., **Sammarco, N.,** Ferguson, R., Watkins, L., Kuhn, M., & Sigafoos, J. (2018). Comparison of schematic and taxonomic speech generating devices for children with ASD. *Education and Training in Autism and Developmental Disabilities, 53*(2), 222-238.

Watkins, L., O'Reilly, M. F., Ledbetter-Cho, K., Lang, R., Sigafoos, J., Kuhn, M., . . . **Caldwell, N.** (2017). A meta-analysis of school-based social interaction

interventions for adolescents with autism spectrum disorder. *Review Journal of Autism and Developmental Disorders, 4*(4), 277-293. https://doi.org/10.1007/s40489-017-0113-5

Gevarter, C., O'Reilly, M. F., Kuhn., M., Watkins, L Ferguson, R. **Sammarco, N.,** Rojeski, L., & Sigafoos, J (2017). Assessing the acquisition of requesting a variety of preferred items using different SGD formats for children with autism spectrum disorder. *Assistive Technology, 29*(3), 153-160. https://doi.org/10.1080/10400435.2016.1143411

Gevarter, C., Bryant, D. P., Bryant, B., Watkins, L., Zamora, C., & **Sammarco, N.** (2016). Mathematics interventions for individuals with autism spectrum disorder: A systematic review. *Review Journal of Autism and Developmental Disorders, 3*(3), 224-238. https://doi.org/10.1007/s40489-016-0078-9

Gevarter, C., O'Reilly, M. F., Rojeski, L., **Sammarco, N.,** Sigafoos, J., Lancioni, G. E., & Lang, R. (2014). Comparing acquisition of AAC-based mands in three young children with autism spectrum disorder using iPad® applications with different display and design elements. *Journal of Autism and Developmental Disorders, 44*(10), 2464-2474. https://doi.org/10.1007/s10803-014-2115-9

Gevarter, C., O'Reilly, M. F., Rojeski, L., **Sammarco, N.,** Lang, R., Lancioni, G. E., & Sigafoos, J. (2013). Comparing communication systems for individuals with developmental disabilities: A review of single-case research studies. *Research in Developmental Disabilities, 34*(12), 4415-4432.

Gevarter, C., O'Reilly, M. F., Rojeski, L., **Sammarco, N.,** Lang, R., Lancioni, G. E., & Sigafoos, J. (2013). Comparisons of intervention components within augmentative and alternative communication systems for individuals with developmental disabilities: A review of single-case research studies. *Research in Developmental Disabilities, 34*(12), 4404-4414. https://doi.org/10.1016/j.ridd.2013.09.017

**Nonrefereed Articles**

**Caldwell**, N., Kucharczyk, S., Eyers, R., & Hyer, G. (2023). Recommended practices for students with extensive support needs during online learning. *DADD Express*. *34*(2).

**Publications In Peer-Review or Preparation**

Griffen, B., Lorah, E., **Caldwell**, N., & Holyfield, C. (accepted with revisions). Effects of AAC intervention on school readiness skills from young children with intellectual and developmental disabilities. *Folia Phoniatrica et Logopaedica: official organ of the International Association of Logopedics and Phoniatrics (IALP).*

Holyfield, C., Zimmerman, T., MacNeil, S., **Caldwell**, N., Patel, P., Griffen, B., Lorah, E., Dragut, E., & Vucetic, S (in review). Preliminary investigation of context-aware AAC with automated just-in-time cloze phrase response options for social participation from children on the autism spectrum. *Folia Phoniatrica et Logopaedica: official organ of the International Association of Logopedics and Phoniatrics (IALP).*

Lorah, E., Holyfield, C., Zimmerman, T., & **Caldwell**, N. (in review). Spurring innovation in AAC technology through collaborative dreaming and needs finding with individuals with developmental disabilities who use AAC. *Seminars in Speech and Language.*

**Caldwell**, N., Holyfield, C., Lorah, E., Zimmerman, T.O., & Griffen, B. (in preparation). Context aware augmentative and alternative communication to increase social participation in young autistic children.

**Book Chapters**

**Caldwell**, N., & Holyfield, C. (2023). Introduction to augmentative and alternative communication. In R. Glade & K. Frazier (Eds.), *Communication Disorders: Foundations and Clinical Applications for Emerging Clinicians*. Dubuque, IA: Kendall Hunt Publishing.

O'Reilly, M., **Sammarco, N.,** Kuhn, M., Gevarter, C., Watkins, L., Gonzales, H., Rojeski, L., Sigafoos, J., Lancioni, G., & Lang, R. (2015) Inborn and acquired brain and physical disabilities. In H. Roane, J. Ringdahl, & T. Falcomata (Eds.), Clinical and organizational applications of applied behavior analysis. Amsterdam: Elsevier.

**Peer-Reviewed International and National Presentations**

**Caldwell**, N., Holyfield, C., Lorah, E., McNeil, S. & Griffen, B. (2024). Context aware augmentative and alternative communication to increase social participation. Accepted for symposium presentation at Association for Behavior Analysis International 50th Annual Conference, Philadelphia, PA.

**Caldwell**, N., & Lorah, E. (2024) *Arkansas Association for Behavior Analysis*. Accepted for poster presentation at Association for Behavior Analysis International 50th Annual Conference, Denver, CO.

Lorah, E., Holyfield, C., & **Caldwell**, N. (2024). *Preparing for Kindergarten using Augmentative and Alternative Communication.* Presentation at Annual Conference for the Assistive Technology Industry Association, Orlando, Florida.

Miller, S., Holyfield, C., Lorah, E., & **Caldwell**, N. (2024). *Using AAC to Build Preschool Beginning Communicators' Inclusion in Song Routines.* Poster

presented at Annual Conference for the Assistive Technology Industry Association, Orlando, Florida.

**Caldwell**, N., Lorah, E., & Karnes, A. (2023) *Arkansas Association for Behavior Analysis*. Poster presented at Association for Behavior Analysis International 49th Annual Conference, Denver, CO.

Lorah, E., **Caldwell**, N., & Griffen, B. (2023) *Behavior Analysis at the University of Arkansas*. Poster presented at Association for Behavior Analysis International 49th Annual Conference, Denver, CO.

Griffen, B., Holyfield, C., Lorah, E., & **Caldwell**, N. (2023) *Using Naturalistic Augmentative and Alternative Communication Intervention for Children with Autism During Social Routines*. Symposium at Association for Behavior Analysis International 49th Annual Conference, Denver, CO.

Holyfield, C., MacNeil, S., Vucetic, S., Dragut, E., Rackensperger, T., Lorah, E., **Caldwell**, N., Karnes, A. (2023). *Is the current state of natural language processing the future for AAC?* Poster presented at Annual Conference for the Assistive Technology Industry Association, Orlando, Florida.

**Caldwell**, N. (2022) *A Pilot RCT of Imitation Intervention on Generalized Imitation in Young Children with Autism Spectrum Disorder*. Symposium at Association for Behavior Analysis International 48th Annual Conference, Boston, MA.

Kuhn, M., & **Caldwell**, N. (2022) *A Comparison of Feedback Provided through Live Video Streaming and Post-Video Conferencing on the Treatment Integrity of Individuals Pursuing a Board Certification in Behavior Analysis*. Symposium at Association for Behavior Analysis International 48th Annual Conference, Boston, MA.

**Caldwell, N.,** Albarran, S., Crank, J., Canihuante, M., Sandbank, M.S. (2019) *A Pilot Randomized Controlled Trial of Imitation Intervention on Generalized Imitation in Young Children with Autism*. Poster presented at Conference on Research Innovations in Early Intervention, San Diego, CA.

**Sammarco-Caldwell, N.**, O'Reilly, M., Kuhn, M., & Watkins, L. (2017) *A Review of Interventions to Teach Motor Imitation in Children With Autism Spectrum Disorder*. Poster presented at Association for Behavior Analysis 11th Annual Autism Conference, San Juan, Puerto Rico.

Kuhn, M., O'Reilly, M., Watkins, L., **Sammarco-Caldwell, N.,** & Ledbetter-Cho, K. (2017) *A Review of Interventions for Increasing Parallel, Associative, and Cooperative Play in Young Children with Autism Spectrum Disorder*. Poster presented at Association for Behavior Analysis 11th Annual Autism Conference, San Juan, Puerto Rico

Gonzales, H., O'Reilly, M.F., Lang, R., Hoffman, K., Falcomata, T., Flower, A., **Sammarco-Caldwell, N.,** & Hodges, A. (2016) *Evaluation of Pre-Session and Within-Session Choice Opportunities in Preference Assessment Variations*. Symposium at Association for Behavior Analysis International 42nd Annual Conference, Chicago, IL.

Gevarter, C., O'Reilly, M.F., **Sammarco, N**., Ferguson, R., Kuhn, M., Watkins, L., Rojeski,L., & Gonzales, H. (2015). *A comparison of schematic and taxonomic iPad® AAC systems for teaching multistep navigational AAC requests to children with ASD*. Symposium at Association for Behavior Analysis International 41st Annual Conference, San Antonio, TX.

Watkins, L., O'Reilly, M., Kuhn, M., **Sammarco, N**., Gevarter, C., Gonzales, H., & Rojeski, L. (2015). *Social interaction interventions for adolescents with autism spectrum disorder: A meta-analysis of single case research studies*. Paper presented at Association for Behavior Analysis International 41st Annual Conference, San Antonio, TX.

Gevarter, C., O'Reilly, M.F., Watkins, L., Kuhn, M., Ferguson, R., **Sammarco, N**., Gonzales, H., Rojeski,L. (2015). *Teaching discriminated requests to individuals with autism spectrum disorder using different iPad® AAC displays*. Poster presented to the Association for Behavior Analysis International 41st Annual Conference, San Antonio, TX.

Gevarter, C., O'Reilly, M.F., Rojeski, L.,Watkins, L., Kuhn, M., Gonzales, H., & **Sammarco, N.** ( 2014). *Teaching discriminated requests to an individual with autism spectrum disorder using grid, scene, and hybrid displays on an iPad AAC application*. Poster presented at International Society for Augmentative and Alternative Communication 16th Biennial Conference, Lisbon, Portugal.

Gevarter, C., Rojeski, L., **Sammarco, N.,** Sigafoos, J., Lancioni, G., & Lang, R. (2014) *Comparing Acquisition of Mands in Children with Autism Using iPads with Scene-based, Grid-based, or Hybrid Displays*. Symposium at Association for Behavior Analysis International 40th Annual Conference, Chicago, IL.

Rojeski, L., O'Reilly, M.F., Gevarter, C., Gonzales, H., **Sammarco, N.,** Kuhn, M., Watkins, L., & Kajian, M. (2014). *Mand Training Satiation Procedures to Reduce Challenging Behavior in Instructional Environments for Children with ASD*. Symposium at Association for Behavior Analysis International 40th Annual Conference, Chicago, IL.

Gevarter, C., O'Reilly, M., Rojeski, L., **Sammarco, N.,** Lang, R., Lancioni, G., & Sigafoos, J. (2014) *Comparing Communication Systems for Individuals With Developmental Disabilities: A Review of Single-Case Research Studies*. Poster

presented at Association for Behavior Analysis International 40th Annual Conference, Chicago, IL.

Rojeski, L., O'Reilly, M.F., Gevarter, C., **Sammarco, N.,** Gonzales, H., Longino, D., Davitt, C., & Lesser, M. (2014) *Assessment of Challenging Behavior Maintained by Access to iPads for Children with Autism Spectrum Disorder*. Poster presented at Association for Behavior Analysis International 40th Annual Conference, Chicago, IL.

Watkins, L., Kuhn, M., Gevarter, C., Gonzales, H., Longino, D., Rojeski, L., **Sammarco, N.,** & O'Reilly, M.F. (2014) *Social Interaction Interventions for Individuals with Autism: A Review of the Literature*. Poster presented at Association for Behavior Analysis International 40th Annual Conference, Chicago, IL.

**Invited Continuing Education Presentations**

**Caldwell**, N. (Nov. 2023). *Functional Behavior Assessment and Intervention in Pre-K School Settings*. Presented at the Fayetteville Public Schools Pre-K Professional Development Faculty Meeting, Fayetteville, AR.

**Caldwell**, N. (Oct. 2023). *Autism and Behavior Change in Pre-K School Settings*. Presented at the Fayetteville Public Schools Pre-K Professional Development Faculty Meeting, Fayetteville, AR.

**Caldwell**, N., & Lange, K. (2023) *Supporting Children in Early Learning Settings*. Virtual Presentation at the Arkansas Council of Exceptional Children Annual Mini-Symposium, Fayetteville, AR.

**Caldwell**, N., (2023) *Naturalistic Developmental Behavioral Interventions*. Presented at the Galliant Care National BCBA Staff Meeting, Austin, TX.

**Awards and Honors**

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| Education Annual Fellowship | 2013-2014 |
| Long Graduate Fellowship | 2013-2014 |

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## University and Professional Service

**Professional Leadership & Affiliations**

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| Association for Behavior Analysis International | 2013-Present |
| Arkansas Association for Behavior Analysis | 2019-Present |
| President | 2024 |
| President Elect | 2023 |

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| Vice President & Secretary | 2022 |
| Regional Representative | 2020-2022 |
| Council for Exceptional Children | 2019-Present |
| Arkansas Council for Exceptional Children | 2019-Present |
| CEC Arkansas Division on Autism and Developmental Disabilities | 2019-Present |
| President | 2022-2024 |
| Secretary/Treasurer | 2020-2022 |
| CEC Division for Early Childhood | 2022-Present |
| CEC Teacher Education Division | 2023-Present |

**Reviewer**

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| Journal of Developmental and Physical Disabilities | 2015-2016 |
| DEC Annual Conference submissions | 2023 |

**Graduate Thesis and Dissertations**

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| Master's Thesis Committee: Sydney Miller | 2024 |
| Master's Thesis Committee: Francesca D'Agrosa | 2024 |
| Doctoral Dissertation Committee: Brenna Griffen | 2023 |

**University Organizations**

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| Campus Sexual & Relationship Violence Center – Volunteer Advocate | 2023-2024 |