Koeun Choi November 2024

<u>CONTACT</u> 305 Wallace Hall INFORMATION 295 West Campus Drive

Human Development and Family Science

Virginia Tech

Blacksburg, Virginia 24061 USA

**EDUCATION** 

2016 University of Wisconsin-Madison, Wisconsin, USA

Ph.D. in Human Development and Family Studies;

Minor in Educational Psychology

Dissertation: Toddlers' learning from touch screens: The role of working memory

E-mail: koeun@vt.edu

Phone: (540) 231-5720

WWW: kchoi.org

2011 Seoul National University, Seoul, South Korea

M.A. in Child Development and Family Studies

Thesis: Two-, three-, and four-year-olds' use of accuracy cues in word learning

2008 Seoul National University, Seoul, South Korea

B.A. in Family and Child Studies, cum laude; Double Major in Psychology

PROFESSIONAL POSITIONS

08/2018 - Department of Human Development and Family Science

PRESENT Virginia Polytechnic Institute and State University (Virginia Tech),

Blacksburg, Virginia, USA

Assistant Professor

09/2017 - Department of Psychology

07/2018 Rutgers University-Newark, New Jersey, USA

Postdoctoral Fellow (PI: Dr. Elizabeth Bonawitz)

07/2016 - Department of Psychology

06/2017 University of California, Riverside, California, USA

Postdoctoral Scholar (PI: Dr. Rebekah Richert)

AFFILIATED POSITIONS

2019 - 2022 The Center for Humanities Affiliated Faculty Member

AWARD	S, HONORS, AND PROFESSIONAL DEVELOPMENT GRANTS
2024	$\bullet$ ICAT Creativity + Innovation Day Museum's Choice Award at Virginia Tech
2023	<ul> <li>Dennis Dean Undergraduate Research and Creative Scholarship Conference Service Learning and Research Award at Virginia Tech (Student Poster)</li> <li>Institute for Society, Culture, and Environment (ISCE) Support for Summer Institute Course at Virginia Tech (\$1,200)</li> </ul>
2022	• ICAT Creativity + Innovation Day Judges' Choice Award at Virginia Tech (Robot Musical Theater STEAM Team)
2021	• Outstanding Undergraduate Research Mentor Award from the Office of Undergraduate Research at Virginia Tech
2019	<ul> <li>The Center For Humanities Professional Development Grant at Virginia Tech (\$2,000; 2019-2022)</li> <li>New Faculty Mentoring Grant at Virginia Tech (\$1,500)</li> </ul>
2018	• Top Paper Award from the Children, Adolescents, and Media Division of International Communication Association (Kirkorian, <b>Choi</b> , <b>K</b> ., Yoo, & Etta)
2017	<ul> <li>Top Paper Award from the Children, Adolescents, and Media Division of International Communication Association (Kirkorian, Choi, K., &amp; Anderson)</li> <li>Society for Research in Child Development Early Career Travel Award (\$500)</li> </ul>
2016	• Human Development & Family Studies Outstanding Research Award (\$400)
2015	<ul> <li>Sackler Colloquia National Academy of Sciences Travel Award (\$1,000)</li> <li>Schurch-Thomson Graduate Research Award (\$2,000)</li> <li>Human Development &amp; Family Studies Summer Research Award (\$1,500)</li> </ul>
2014	<ul> <li>Human Development &amp; Family Studies Summer Research Award (\$1,500)</li> <li>Meyers Fund of the School of Human Ecology Travel Award (\$500/yr; 2014-2016)</li> </ul>
2013	<ul> <li>Human Development &amp; Family Studies Travel Award (\$500/yr; 2013-2016)</li> <li>McPherson ERI David G. Walsh Research Travel Award (\$1,000)</li> <li>Viola Baker Endowment School of Human Ecology Travel Award (\$500)</li> <li>Human Development &amp; Family Studies Outstanding Research Scholarship Award</li> <li>Society for Research in Child Development Travel Award (\$300)</li> </ul>
2012	$\bullet$ Korean Honor Scholarship sponsored by the Embassy of the Republic of Korea (\$1,000)
2010	$\bullet$ Graduate Student Award, Korea Institute of Child Care & Education (\$500)
2003	$\bullet$ Seoul National University Entrance Scholarship, Seoul National University

## RESEARCH INTERESTS

As a developmental scientist, my transdisciplinary research program examines the role of technology on cognitive development in early childhood to better understand and support young children's attention and learning in complex and dynamic technological landscapes. I leverage technological tools to enhance educational opportunities for children, including those who need them most. I focus on two complementary lines of research to identify the role of technology in young children's cognitive development. The first area focuses on experimental research that examines children's learning from interactive technology, which includes devices and systems that require active engagement from children to facilitate interaction and learning. The second area includes eye-tracking and correlational studies that investigate attentional processes and family contextual factors related to children's technology use. I translate my research into practice to inform parents, educators, content creators, developers, health professionals, and policymakers about how to effectively use technology to support children and their families.

#### **PUBLICATIONS**

<sup>U</sup>Undergraduate student mentee; <sup>G</sup>Graduate student mentee;

\*Corresponding author

### Manuscripts under review

[2] 2 co-author

- 2. <sup>G</sup>Dong, J., <sup>G</sup>Yu, S., **Choi, K.**, & \*Jeon, M. (under review). A child-robot theater afterschool program can facilitate children's conceptualization of robots' mental capacities and learning experiences.
- 1. \*GVargas-Diaz, D., GKarunaratna, S., GKim, J., Choi, K., Hornburg, C. B., & Lee, S. (revised and resubmitted). TaleMate: Voice agents for parent-child joint reading experiences.

PEER REVIEWED JOURNAL ARTICLES

[18] 9 corresponding author (6 first author, 1 co-first author, 2 senior author), 1 first author, 8 co-author

- 18. Choi, K., & \*Hong, Y. (in press). Differential roles of problematic media use by mothers and toddlers in the relation between parenting stress and toddlers' socioemotional development *Infant Behavior and Development*.
- 17. \*G\*\*Wong, M., \*Choi, K. (co-first), Barak, L., Lapidow, E., Austin, J., Shafto, P., & \*Bonawitz, E. (2024). Young children's directed question asking in preschool classrooms. *Behavioral Sciences*, 14(9), 754. https://doi.org/10.3390/bs14090754

- 16. GDong, J., Choi, K., GYu, S., GLee, Y., Kim, J., UVajir, D., Hains, C., Newbill, P., Wyatt, A., Upthegrove, T. & \*Jeon, M. (2024). A child-robot musical theater afterschool program for promoting STEAM education: A case study and guidelines. International Journal of Human-Computer Interaction, 40(13), 3465-3481. https://doi.org/10.1080/10447318.2023.2189814
- 2023 **15**. \*Choi, K. (2023). Understanding early learning in an evolving digital media land-scape. Journal of Applied Research in Memory and Cognition, 12(4), 476-479. https://doi.org/10.1037/mac0000146
- 2022 **14. \*Choi, K.**, Schlesinger, M. A., Franchak, J. M, & Richert, R. A. (2022). Preschoolers' attention to and learning from on-screen characters that vary by effort and efficiency: An eye-tracking study. *Frontiers in Psychology*, 13, 1011172. https://doi.org/10.3389/fpsyg.2022.1011172
  - 13. \*Kirkorian, H. L., Choi, K., Etta, R. A, & Yoo, S. H. (2022). The impact of touchscreen interactivity on U.S. toddlers' selective attention and learning from digital media. *Journal of Children and Media*, 16(2), 188-204. https://doi.org/10.1080/17482798.2021.1944888
- 2021 **12.** \*Choi, K. (2021). Sesame Street: Beyond 50. Journal of Children and Media, 15(4), 597-603. https://doi.org/10.1080/17482798.2021.1978675
  - 11. <sup>G\*</sup>Macias, C., & \*Choi, K. (2021). Preschoolers' beliefs about media technologies: The role of family income. *Human Behavior and Emerging Technologies*, 1-13. https://doi.org/10.1002/hbe2.278
  - 10. \*Rosengren, K., Kirkorian, H. L., Choi, K., Jiang, M. J., <sup>U</sup>Raimer, C., <sup>U</sup>Tolkin, E., & <sup>U</sup>Sartin-Tarm, A. (2021). Attempting to break the fourth wall: Young children's action errors with screen media *Human Behavior and Emerging Technologies*, 1-16. https://doi.org/10.1002/hbe2.273
  - 9. <sup>G</sup>Shin, E., \*Choi, K., <sup>G</sup>Resor, J., & Smith, C. L. (2021). Why do parents use screen media with toddlers? The role of child temperament and parenting stress in early screen use. *Infant Behavior and Development*, 64, 101595. https://doi.org/10.1016/j.infbeh.2021.101595
  - 8. \*Choi, K., Kirkorian, H. L., & Pempek, T. A. (2021). Touchscreens for whom? Working memory and age moderate the impact of contingency on toddlers' transfer from video. Frontiers in Psychology, 12, 621372. https://doi.org/10.3389/fpsyg.2021.621372
- 7. \*Kirkorian, H. L., Travers, B., Jiang, M., **Choi, K.**, Rosengren K. S., <sup>U</sup>Pavalko P., & <sup>U</sup>Tolkin, E. (2020). Drawing across media: A cross-sectional experiment on preschoolers' drawings produced using traditional versus electronic mediums. *Developmental Psychology*, 56(1), 28-39. https://doi.org/10.1037/dev0000825

6. \*Kirkorian, H. L., Choi, K., & Anderson, D. R. (2019). American parents' active engagement mediates the impact of background television on toddlers' play. *Journal of Children and Media*, 13(4), 377-394. https://doi.org/10.1080/17482798.2019.1635033

2018

- 5. \*Choi, K., Kirkorian, H. L., & Pempek, T. A. (2018). Understanding the transfer deficit: Contextual mismatch, proactive interference, and working memory affect toddlers' video-based transfer. *Child Development*, 89(4), 1378-1393. https://doi.org/10.1111/cdev.12810
- 4. \*Travers, B. G., Kirkorian, H. L., Jiang, M. J., Choi, K., Rosengren, K. S., <sup>U</sup>Pavalko, P., & <sup>U</sup>Jobin, P. (2018). Knowing how to fold 'em: Paper folding across early child-hood. *Journal of Motor Learning and Development*, 6(1), 147-166. https://doi.org/10.1123/jmld.2016-0044

2017

3. \*Kirkorian, H. L., & Choi, K. (2017). Associations between toddlers' naturalistic media experience and observed learning from screens. *Infancy*, 22(2), 271-277. https://doi.org/10.1111/infa.12171

2016

- 2. \*Choi, K., & Kirkorian, H. L. (2016). Touch or watch to learn? Toddlers' object retrieval using contingent and noncontingent video. *Psychological Science*, 27(5), 726-736. https://doi.org/10.1177/0956797616636110
- 1. \*Kirkorian, H. L., **Choi, K.**, & Pempek, T. A. (2016). Toddlers' word learning from contingent and noncontingent video on touch screens. *Child Development*, 87(2), 405-413. https://doi.org/10.1111/cdev.12508

SELECTED
MANUSCRIPTS IN
PREPARATION

[6] 6 corresponding author (2 first author, 4 senior author)

- **6**. <sup>G</sup>Gurdal, M., **\*Choi, K.**, & \*Smith, C. L. (in preparation). Associations of maternal emotion regulation and mothers' and toddlers' screen use (first draft completed, to be submitted in Fall 2024).
- **5.** \*Choi, K., <sup>G</sup>Kim, J., <sup>G</sup>Yu, S., Shin, E., & Smith, C. L. (in preparation). Maternal media beliefs moderate the relation between parenting stress and toddlers' screen use (first draft completed, to be submitted in Fall 2024).
- 4. <sup>G</sup>Beers, C., <sup>G</sup>Yu, S., <sup>G</sup>Ozcan, S., Smith, C. L., & \*Choi, K. (in preparation). Feeling guilty around child's screen use: The associations among parental awareness, agreeableness, and adherence related to media guidelines, child screen use, and maternal media guilt (first draft completed, to be submitted in Fall 2024).
- 3. <sup>G</sup>Kim, J., & \*Choi, K. (in preparation). Examining preschoolers' learning from socially contingent video: Effects of child, media design, and media use context factors (fully drafted, to be submitted in Summer 2024).

- 2. <sup>G</sup>Yu, S., \*Choi, K. (co-first), <sup>G</sup>Kim, J., <sup>G</sup>Dong, J., <sup>G</sup>Lee, Y., Haines, C., Newbill, P, Wyatt, A., Upthegrove, T. & Jeon, M. (in preparation). Promoting early STEAM learning through robots: A case study of applying robot musical theater in early childhood classrooms (fully drafted, to be submitted in Summer 2024).
- 1. GOzcan, S., \*Hong, Y., & \*Choi, K. (in preferation). Longitudinal associations between problematic media use and executive functions in early and middle childhood (fully drafted, to be submitted in Summer 2024).

## INVITED BOOK CHAPTERS

[4] 1 corresponding author (1 first author), 3 co-author

[6] 2 corresponding author (2 first author), 4 co-author

2024

- 4. \*Richert, R. A. Choi, K., Gleason, T., Goldstein, T. R., & Sibert, S. M. (in press). Screen media and children's imagination, creativity, and play. In C. Dimitri, & L. Hale, (Eds.), *Children and Screens handbook*. Springer.
- 3. \*Choi, K., & Jeon, M. (in press). Child-robot musical theater for diverse and inclusive STREAMS education for children. In D. Huffman, K. Feldman, & I. Herrick (Eds.), STEM to STREAMS: Towards a more equitable vision of STEM education. Rowman & Littlefield.

2017

2. \*Kirkorian, H. L., Pempek, T. A., & Choi, K. (2017). The role of online processing in young children's ability to learn from interactive and noninteractive media. In R. Barr & D. Linebarger (Eds.), Media exposure during infancy and early childhood: The effect of content and context on learning and development (pp. 65-89). Springer. https://doi.org/10.1007/978-3-319-45102-2\_5

2011

1. \*Yi, S., Kim, M., Gun, K., Jung, J., Song, M., & Choi, K. (2011). Early child-hood education program of intergenerational integration: Integrating early childhood program series. Seoul: Hakjisa.

PEER REVIEWED
PAPERS IN
CONFERENCE
PROCEEDINGS

- 6. GDong, J., GMitchell, J. J., GYu, S., UHarmon, M., UHolstein, A., GShim, J. H., Choi, K., Zhu, Q., & \*Jeon, M. (2024). Promoting STEAM education and AI/robot ethics in a child- robot theater afterschool program. Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction (HRI2024), Boulder, CO, March 11-15. IEEE. https://dl.acm.org/doi/10.1145/3610978.3641110
- 5. GMitchell, J. J., GDong, J., GYu, S., UHarmon, M., UHolstein, A., GShim, J. H., Choi, K., Zhu, Q., & \*Jeon, M. (2024). Bridging the gap: Early education on robot and AI ethics through the robot theater platform in an informal learning environment. Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction

(HRI2024), Boulder, CO, March 11-15. IEEE. https://dl.acm.org/doi/10.1145/3610978.3640581

- 4. \*GVargas-Diaz, D., GKarunaratna, S., GKim, J., Lee, S., & Choi, K. (2023). Tale-Mate: Collaborating with voice agents for parent-child joint reading experiences.

  \*Adjunct Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology. Online. https://doi.org/10.1145/3586182.3616699
- 3. GLee, Y., Wyatt, A., GDong, J., Upthegrove, T., Hale, B., Lyles, C. H., Choi, K., GKim, J., GYu, S., Uvajir, D., Newbill, P., & Jeon, M. (2022). Robot musical theater for climate change education. Proceedings of the 2022 ACM/IEEE International Conference on Human-Robot Interaction. Online. https://dl.acm.org/doi/pdf/10.5555/3523760.3523895
- 2. \*Choi, K., <sup>U</sup>Grados, M., & Bonawitz, E. (2019). Observing child-led exploration improves parents' causal inferences. *Proceedings of the 41th Annual Conference of the Cognitive Science Society*. Montreal, Canada: Cognitive Science Society. https://mindmodeling.org/cogsci2019/papers/0272/index.html
- 2018 **1.** \*Choi, K., <sup>G</sup>Lapidow, E., Austin, J., Shafto, P., & Bonawitz, E. (2018). Preschoolers are more likely to direct learning content questions to adults than to other children (or selves) during spontaneous conversational acts. *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. Madison, WI: Cognitive Science Society. <a href="http://mindmodeling.org/cogsci2018/papers/0061/index.html">http://mindmodeling.org/cogsci2018/papers/0061/index.html</a>

#### RESEARCH SUPPORT

Intramural Funding 2024-2025

- Developmental Science at Virginia Tech Network centralized website development and registry expansion
  - Institute for Society, Culture, and Environment (ISCE) Unsolicited Grant
  - Awarded: \$14.500
  - Koeun Choi (MPI, Contact PI); Caroline Hornburg, Robin Panneton, and Zehra Gulseven (MPIs)

2024-2025

- Reimagining early learning through AI-enhanced parent-child playful joint reading
- Institute for Creativity, Arts, and Technology (ICAT) SEAD Mini Grant
- Awarded: \$6,000
- Koeun Choi (PI); Caroline Hornburg, Sang Won Lee (Co-PIs)

- 2023-2024
- Storybook reading with an AI voice assistant to promote preschoolers' mathematics learning
- Institute for Creativity, Arts, and Technology (ICAT) Steve and Karen Johns/CENI SEAD Grant
- Awarded: \$3,000
- Koeun Choi (PI); Myounghoon Jeon, Caroline Hornburg, Shannon Mury, Jisun Kim, Daniel Vargas-Diaz, Yeaji Lee (Co-PIs)
- 2023-2024
- Collaborative research on conversational artificial intelligence (AI)
- Faculty Affairs Faculty Writing Group Grant
- Awarded: \$2,000
- **Koeun Choi (PI)**; Yan Chen, Michael Hsiao, Abby Walker, Myounghoon Jeon (Co-PIs)
- 2023-2024
- Integrating AI voice assistants into touchscreens for young children's interactive math learning
- Institute for Society, Culture, and Environment (ISCE) Scholars Program Award
- Awarded: \$30,000
- Koeun Choi (PI); Sang Won Lee, Jenny Jinjing Wang (Co-PIs)
- 2023-2024
- Storybook reading with an AI voice assistant to promote preschoolers' mathematics learning
- Institute for Creativity, Arts, and Technology (ICAT) Steve and Karen Johns/CENI SEAD Grant
- Awarded: \$3,000
- **Koeun Choi (PI)**; Myounghoon Jeon, Caroline Hornburg, Shannon Mury, Jisun Kim, Daniel Vargas-Diaz, Yeaji Lee (Co-PIs)
- 2023
- The voice of voice assistants
- Institute for Creativity, Arts, and Technology (ICAT) and Institute for Society, Culture, and Environment (ISCE) Grant
- Awarded: \$22,000
- Abby Walker (PI); Myounghoon Jeon, Sang Won Lee, **Koeun Choi (Co-PI)**, Charlie Klauer (Co-PIs)
- 2022-2023
- Children's story time in a digital world: Preschoolers' math learning from shared digital book reading with a voice assistant
- College of Liberal Arts and Human Sciences Niles Research Grant
- Awarded: \$5,500
- Koeun Choi (PI)
- 2022-2023
- Evaluating commercial screen-based devices for children's connection and engagement with remote contacts
- Institute for Creativity, Arts, and Technology (ICAT) Mini Grant
- Awarded: \$2,912

- Neelma Bhatti (PI); **Koeun Choi (Co-PI)**, Scott McCrickard, Aisling Kelliher (Co-PIs)

#### 2021-2023

- Robot musical theater for promoting STEAM education and integrated art performances
- Institute for Creativity, Arts, and Technology (ICAT) SEAD Grant; Center for Human-Computer Interaction (CHCI) matching funds
- Awarded: \$26,000
- Myounghoon Jeon (PI); **Koeun Choi (Co-PI)**, Phyllis Newbill, Tanner Upthegrove, Ariana Wyatt, Chelsea Lyles (Co-PIs)

#### 2019-2021

- Mobile learning across the life span: Processing and learning information from mobile media technology in children, young adults, and older adults
- Institute for Creativity, Arts, and Technology (ICAT) Science, Engineering, Art, and Design (SEAD) Grant
- Awarded: \$25,000
- Koeun Choi (PI); Benjamin Katz, Adrienne Holz Ivory, Gota Morota (Co-PIs)

#### 2019-2020

- Children's and adults' selective learning from human, print, and digital information sources
- College of Liberal Arts and Human Sciences Niles Research Grant
- Awarded: \$5,000
- Koeun Choi (PI)

#### 2019

- Child temperament and early screen time: The mediating role of parental stress
- Institute for Society, Culture, and Environment (ISCE) Unsolicited Grant
- Awarded: \$4,360
- Koeun Choi (PI); Cynthia L. Smith (Co-PI)

# TRAINEE FELLOWSHIP AND AWARD

[4] Advisees on awards supporting lab projects

#### 2024 - 2026

- STEMEdIPRF: Looking beyond screen time: Exploring the relationship between diverse media experience, educational expectations, and learning in children
- Postdoctoral Fellowship, National Research Foundation
- Awarded: \$170,000
- Carla Macias (PI); Kimele Persaud (Faculty Primary Sponsor), Koeun Choi (Faculty Co-Sponsor)

#### 2024 - 2025

- Understanding the role of digital media on young children's executive functions
- Visiting Scholar Scholarship, The Scientific and Technological Research Council of Turkey
- Awarded: \$22,800
- Faculty Sponsor Supporting Meryem Şeyda Özcan

- 2023 2024
- How ethnicity and neurodiversity affect caregivers' ideal affect: An exploratory study comparing Asian and European American parents of children with autism and without autism
  - Graduate Research Grant, Organization for Autism Research
  - Awarded \$1,343
  - Faculty Sponsor Supporting Shuqi Yu
- 2023 2024
- Shared book reading with an AI voice assistant for preschoolers' mathematical language learning
- Graduate Research and Development Program Dissertation Award, Virginia Tech
- Total Award: \$850
- Faculty Sponsor Supporting Jisun Kim

#### EXTRAMURAL

Funding

## Pending

2025-2027

- Understanding young children's attention and learning from online video platforms using EEG
- National Institute of Health (R03)
- Requested: \$150,803
- Koeun Choi (PI); Martha Ann Bell, Sang Won Lee (Co-PIs)
- 2025-2026
- Supporting playful parent-child joint reading experiences through AI digital technology
- Caplan Foundation for Early Childhood
- Requested: \$58,320
- Koeun Choi (PI); Caroline Hornburg, Sang Won Lee (Co-PIs)
- 2025-2029
- Responsible robot/AI literacy: Embodied informal learning on ethical robotics and AI using the robot theater afterschool program
- National Science Foundation (Computer and Information Science and Engineering: Core)
- Requested: \$600,000
- Myounghoon Jeon (PI); Koeun Choi (Co-PI), Qin Zhu (Co-PI)

#### **PRESENTATIONS**

Invited

PRESENTATIONS [15] 8 domestic and 7 international

- 2023 **15**. **Choi, K.** (2023, December 16). Digital technology and child development. Korean Association of Psychotherapy For Children, South Korea. Virtual.
- 2022 14. Choi, K. (2022, May 20). Cognitive development in the context of digital technology. Global Psychological Science Webinar at Yonsei University, South Korea. Virtual.

- 2021
- 13. Choi, K. (2021, November 26). Young children's digital media use and safety. The Meeting of the Korean Association of Human Ecology, South Korea. Virtual.
- 12. Choi, K. (2021, November 13). Digital media and child development. The Meeting of the Korean Society for Developmental Psychology, South Korea. Virtual.
- 11. Choi, K. (2021, May 14). Cognitive development and digital technology. Department of Bio and Brain Engineering, Korea Advanced Institute of Science and Technology (KAIST), South Korea. Virtual.
- 2019
- 10. Choi, K. (2019, August 5). Children and technology: Understanding cognitive development in digital contexts. Department of Child Development and Family Studies, Seoul National University, Seoul, South Korea.
- 2018
- 9. Choi, K. (2018, December 6). Children's transfer of learning from interactive media technology. Center for Humanities, Virginia Tech, VA.
- 8. Choi, K. (2018, October 26). Children's transfer of learning from interactive media technology. Department of Psychology, Hollins University, VA.
- 7. Choi, K. (2018. October 15). Children's transfer of learning from interactive media technology. National Institute of Education, Singapore.
- **6**. **Choi, K.** (2018, June 1). Parent-child conjunctive play helps parents to think more flexibly. Guiding Guided Play Workshop, Newark, NJ.
- **5.** Choi, K. (2018, January 8). Understanding cognitive development in digital media environments. Department of Human Development & Family Science, Virginia Tech.
- 2017
- 4. Choi, K. (2017, October). Interactions with touch screens improve toddlers' transfer independent of individual differences in working memory. Cognitive Development Society Pre-Conference Workshop on Digital Media & Cognitive Development, Portland, OR.
- 2016
- 3. Choi, K. (2016, March). Touch or watch to learn? Children's learning from interactive & non-interactive symbolic media. Developmental Brown Bag, Department of Psychology, UW-Madison, WI.
- 2015
- 2. Choi, K. (2015, December). Touch or watch to learn? Children's learning from interactive media, Children's Digital Media Center. Georgetown University, WA.
- 2014
- 1. Choi, K. (2014, December). Eye movements as a window into children's learning from visual media, McPherson Eye Research Institution Seminar. UW-Madison, WI.

PEER-REVIEWED <sup>U</sup>Undergraduate student mentee; <sup>G</sup>Graduate student mentee PRESENTATIONS

2024

**60.** GVargas-Diaz, GD., Kim, J., GKarunaratna, S., GReinhardt, M. A., Hornburg, C. B., Choi, K., & Lee, S. W. (2024, May 11). TaleMate: Exploring the use of voice agents for parent-child joint reading experiences [Paper Presentation (5/11)]. CHI 2024 Workshop on Child-centered AI Design, Honolulu, HI. United States.

- **59**. <sup>G</sup>Kim, J., <sup>G</sup>Vargas-Diaz, D., Mury, S., Hornburg, C. B., & **Choi, K.** (2024, May 11). Preschoolers' mathematical language learning during book reading with an AI smart speaker [Paper Presentation (5/11)]. CHI 2024 Workshop on Child-centered AI Design, Honolulu, HI. United States.
- **58**. Walker, A., **Choi, K.**, <sup>G</sup>Gurdal, M., <sup>G</sup>Yu, S., Katz, B., Jeon, M., <sup>U</sup>Morris, K., <sup>U</sup>Odom, C., <sup>U</sup>Kebede, L., & <sup>U</sup>Quesenberry, E. (2024, April 4-7). *The impact of voice assistant accent on user experience* [Paper Presentation (4/6)]. Southeastern Conference on Linguistics, Athens, GA. United States.
- 57. Gurdal, M., Choi, K., Shin, E., & Smith, C. (2024, March 21-23). Understanding parental factors associated with toddlers' video viewing: A chained mediation model investing the roles of parental emotion regulation, media use, stress, and media use motive [Poster Presentation (3/22)]. Cognitive Development Society Meeting, Pasadena, CA. United States.
- **56**. <sup>G</sup>Yu, S., <sup>G</sup>Beers, C., Smith, C. L., & **Choi, K.** (2024, March 21-23). Feeling guilty around child's screen use: The associations among parental awareness, agreeableness, and adherence related to media guidelines, child screen use, and maternal media guilt [Poster Presentation (3/22)]. Cognitive Development Society Meeting, Pasadena, CA. United States.
- **55.** GKim, J., GVargas-Diaz, D., Mury, S., Hornburg, C. B., & **Choi**, **K.** (2024, March 21-23). Preschoolers' mathematical language learning during book reading with an AI smart speaker [Poster Presentation (3/22)]. Cognitive Development Society Meeting, Pasadena, CA. United States.
- 54. GKim, J., GVargas-Diaz, D., GKarunaratna, S., Mury, S., Lee, S., Hornburg, C. B., & Choi, K.. (2023, October 19-20). AI conversational agents for preschoolers' mathematical language learning and engagement [Poster Presentation]. Emerging Perspectives in Early STEM Learning, Development, and Education Workshop, West Lafayette, IN. United States.
- **53**. **Choi, K.**, <sup>G</sup>Yu, S., <sup>G</sup>Kim, J., <sup>G</sup>Dong, J., <sup>G</sup>Lee, Y., Haines, C., Newbill, P., Upthegrove, T., Wyatt, A., & Jeon, M. (2023, April 13-16). *Interactive stories through robot musical theater for preschoolers' STEAM education* [Paper Presentation (4/15)]. Annual Meeting of the American Educational Research Association, Chicago, IL. United States.
- **53**. <sup>G</sup>Kim, J., & **Choi, K.** (2023, March 23-25). The impact of questions on preschoolers' learning from shared book reading over video chat [Paper Presentation (3/23)]. Biennial Meeting of the Society for Research in Child Development, Salt Lake City, UT. United States.
- 52. <sup>G</sup>Yu, S., Choi, K., Kim, J., Dong, J., Lee, Y., Haines, C., Newbill, P., Upthegrove, T., Wyatt, A., & Jeon, M. (2023, March 23-25). Robot musical theater for preschoolers' STEAM education: Effects on interest, self-efficacy, and curiosity in technology [Paper Presentation (3/23)]. Biennial Meeting of the Society for Research in Child Development, Salt Lake City, UT. United States.
- **51**. <sup>G</sup>Gurdal, M., **Choi, K.**, <sup>G</sup>Shin, E., <sup>G</sup>Kim, J., <sup>G</sup>Yu, S., & Smith, C. (2023, March 23-25). Associations of maternal emotion regulation and mothers' and toddlers' screen use [Paper Presentation (3/24)]. Biennial Meeting of the Society for Research in

- 2022
- 49. <sup>G</sup>Yu, S., <sup>G</sup>Dong, J., <sup>G</sup>Kim, J., <sup>G</sup>Lee, Y., <sup>U</sup>Vajir, D., Lyles, C. H., Newbill, P., Upthegrove, T., Wyatt, A., Jeon, M., & Choi, K. (2022, April 21-23). Sing, act, and dance with robots: A child-robot musical theater afterschool program for STEAM education [Poster Presentation (4/23)]. Biennial Meeting of the Cognitive Development Society. Madison, WI.
- 48. GKim, J., & Choi, K. (2022, April 21-23). Q&A on Zoom for preschoolers: The impact of on-screen partner's questions on preschoolers' word learning and memory of content from shared book reading over video chat [Poster Presentation (4/23)]. Biennial Meeting of the Cognitive Development Society. Madison, WI.
- 47. Choi, K., <sup>G</sup>Yu, S., <sup>G</sup>Dong, J., <sup>G</sup>Kim, J., <sup>G</sup>Lee, Y., <sup>U</sup>Vajir, D., Lyles, C. H., Newbill, P., Upthegrove, T., Wyatt, A., & Jeon, M. (2022, April 21). (2022, April 21-23). *Child-robot musical theater for STEAM education* [Paper Presentation (4/21)]. Pre-Conference Workshop on Digital Media Cognitive Development of the Biennial Meeting of the Cognitive Development Society. Madison, WI.
- 2021
- **46**. **Choi, K.**, <sup>U</sup>Grados, M., & Bonawitz, E. (2021, April 7-9). *Child-led play supports adults' exploratory causal inferences* [Paper Presentation (4/9)]. Biennial Meeting of the Society for Research in Child Development. Virtual.
- 45. GMacias, C., & Choi, K. (2021, April 7-9). Preschoolers' beliefs about different symbolic media: The role of socioeconomic backgrounds [Paper Presentation (4/8)]. Biennial Meeting of the Society for Research in Child Development. Virtual.
- **44**. **Choi**, **K**., <sup>G</sup>Kim, J., <sup>G</sup>Shin, E., & Smith, C. L. (2021, April 7-9). *Maternal media beliefs moderate the relation between parenting stress and toddlers' screen use* [Poster Presentation (4/7)]. Biennial Meeting of the Society for Research in Child Development. Virtual.
- 43. Zettersten, M., Choi, K., Kirkorian, H., & Saffran, J. (2021, April 7-9). Children actively sample information in support of learning new words [Paper Presentation (4/7)]. Biennial Meeting of the Society for Research in Child Development. Virtual.
- 2020
- **42**. <sup>G</sup>Shin, E., **Choi, K.**, & Smith, C. L. (2020, November 1-2). Why do parents use screen media with toddlers? The role of child temperament and parenting stress in early screen time [Paper Presentation (11/2)]. The 23rd Occasional Temperament Conference, Blacksburg, VA. Virtual.
- **41**. **Choi, K.**, <sup>U</sup>Grados, M., & Bonawitz, E. (2020, May 28-29). *Child-led play supports adults' exploratory causal inferences* [Paper Presentation Accepted, Conference Canceled due to COVID-19]. Special Topics Meeting of the Society for Research in Child Development: Learning through Play and Imagination, St. Louis, MO.
- 2019
- 40. Choi, K., <sup>U</sup>Grados, M., & Bonawitz, E. (2019, October 17-19). Learning from children: Adults' exploratory causal inferences benefit from observing child-led explorations [Poster Presentation (10/19)]. Biennial Meeting of the Cognitive Development Society, Louisville, KY.
- **39**. Zettersten, M., **Choi, K.**, Kirkorian, H. L., & Saffran, J. (2019, October 17-19). How does active sampling support learning new words? [Poster Presentation (10/18)].

- Biennial Meeting of the Cognitive Development Society, Louisville, KY.
- 38. GMacias, C., UShaban, F., Bonawitz, E., & Choi, K. (2019, October 17-19). The effect of socioeconomic status on young children's perceptions about media devices [Poster Presentation (10/17)]. Preconference Workshop on Digital Media and Cognitive Development at the Biennial Meeting of the Cognitive Development Society, Louisville, KY.
- **37**. **Choi, K.**, <sup>U</sup>Grados, M., & Bonawitz, E. (2019, July 24-27). *Observing child-led exploration improves parents' causal inferences* [Poster Presentation (7/27)]. Poster presented at the 41th Annual Cognitive Science Society Meeting, Montreal, Canada.
- **36**. Rett, A., Bonawitz, E., **Choi, K.**, & Walker, C. (2019, July 24-27). I never even considered that! Investing explanations for adults failures to learn conjunctive causal rules [Poster Presentation (7/27)]. Annual Cognitive Science Society Meeting, Montreal, Canada.
- **35**. Rett, A., Bonawitz, E., **Choi, K.**, & Walker, C. (2019, July 10-13). When evidence alone is not enough: Facilitating the generation of unusual causal hypotheses [Poster Presentation (7/13)]. Annual Meeting of the Society for Philosophy and Psychology, San Diego, CA.
- 34. Choi, K., Lapidow, E., Austin, J., Shafto, P., & Bonawitz, E. (2019, March 21-23). Preschoolers are more likely to direct learning content questions to adults than to other children (or selves) during spontaneous conversational acts [Paper Presentation (3/23)]. Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- **33**. Choi, K., & Bonawitz, E. (2019, March 21-23). Child-led play supports parents to make flexible and exploratory causal inferences [Paper Presentation (3/23)]. The Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- **32**. Baugh, C., Richert, R., Schlesinger, M., & **Choi**, **K.** (2019, March 21-23). The role of perceived similarity in children's social learning [Poster Presentation (3/22)]. Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.
- 31. Choi, K., Lapidow, E., Austin, J., Shafto, P., & Bonawitz, E. (2018, July 25-28). Preschoolers are more likely to direct learning content questions to adults than to other children (or selves) during spontaneous conversational acts [Paper Presentation (7/27)]. Annual Cognitive Science Society Meeting, Madison, WI.
- **30.** Choi, K., & Bonawitz, E. (2018, July 25-28). Adults can exploit children's exploration for their own learning: Child-led play supports adult causal conjunctive inferences [Poster Presentation (7/25)]. Pre-Conference Workshop on Understanding Exploration-Exploration Trade Offs at The 40th Annual Cognitive Science Society Meeting, Madison, WI.
- 29. Kirkorian, H., Choi, K., Yoo, S. & Etta, R. A. (2017, October 12-14). Selective attention and learning from interactive and noninteractive video: An eye movement study [Paper Presentation (10/14)]. Biennial Meeting of the Cognitive Development Society, Portland, OR.
  - 28. Choi, K., Schlesinger, M. A., Grant, C., Puttre, H. J., Franchak, J. M., & Richert, R. A. (2017, October 12-14). Preschoolers use others' effort as a cue to attention and

- selective imitation [Poster Presentation (10/13)]. Biennial meeting of the Cognitive Development Society, Portland, OR.
- 27. Jiang, M., Choi, K., Raimer, C., Kirkorian, H. L., Tolkin, E., Sartin-Tarm, A., & Rosengren, K. S. (2017, October 12-14). *Children's action errors: A diary study in their natural environment* [Poster Presentation (10/13)]. Biennial Meeting of the Cognitive Development Society, Portland, OR.
- 26. Lapidow, E., Bonawitz, E., Shafto, P., Austin, J., Choi, K., Tariq, S., & Bell, C. (2017, October 12-14). Preschoolers are more likely to direct questions to adults than to other children (or selves) during spontaneous conversational acts [Poster Presentation (10/12)]. Cognitive Development Society Pre-Conference Workshop on Question Asking on Childhood, Portland, OR.
- 25. Kirkorian, H. L., Choi, K., & Anderson, D. R. (2017, May 25-29). Parents' active engagement mediates the impact of background TV on toddlers' play [Paper Presentation (5/29)]. Annual Meeting of the International Communication Association, San Diego, CA.
- 24. Etta, R. A, Kirkorian, H. L., & Choi, K. (2017, May 25-29). Preschoolers' learning from children's books: Effects of platform and interactivity [Paper Presentation (5/29)]. Annual Meeting of the International Communication Association, San Diego, CA.
- 23. Choi, K., Schlesinger, M. A., Franchak, J. M., & Richert, R. A. (2017, May 25-29). Character perceptions guide children's looking to and learning from on-screen characters [Paper Presentation (5/28)]. Annual Meeting of the International Communication Association, San Diego, CA.
- 22. Jiang, M., Choi, K., Kirkorian, H. L., Travers, B. G., Rosengren, K. S., Millerhagen, J., Lee, C., & Haugstad, N. (2017, April 6-8). *Drawing across mediums: The impact of technology on the quality and production of drawings* [Poster Presentation (6/8)]. Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- 21. Choi, K., Kirkorian, H. L., & Etta, R. A. (2017, April 6-8). The effect of contextual variability on the generalization of category labels between symbolic mediums [Poster Presentation (6/7)]. Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- 20. Etta, R. A, Kirkorian, H. L., & Choi, K.. (2017, April 6-8). Preschoolers' learning from children's books: Effects of platform and interactivity [Poster Presentation (6/7)]. Biennial Meeting of the Society for Research in Child Development, Austin, TX.
- 19. Choi, K., Kirkorian, H. L., Pempek, T. A., & Etta, R. A. (2016, October). On-screen or off-screen? The role of retrieval contexts and working memory in toddlers' object retrieval using touch screens [Flask Talk Presentation]. Special Topics Meeting of the Society for Research in Child Development, Irvine, CA.

- 18. Choi, K., Kirkorian, H. L., Pempek, T. A., & Etta, R. A. (2016, May). Toddlers' object retrieval using touchscreens: The role of working memory skills [Paper Presentation]. Biennial Meeting of the International Congress of Infant Studies, New Orleans, LA.
- 17. Jiang, M. J., Choi, K., Kirkorian, H. L., Travers, B. G., Rosengren, K. S., Jobin,

- P., Pavalko, P., Matoba, M. & Tolkin, E. (2016, May). Drawing across media: The impact of technology on the quality of drawings [Poster Presentation]. Annual Meeting of the Association for Psychological Science, Chicago, IL.
- 2015 **16.** Choi, K., Kirkorian, H. L., Pempek, T. A., Schroeder, E. L, & Etta, R. A. (2015, October). The impact of contextual differences on toddlers' object retrieval using touchscreens [Poster Presentation]. Digital Media & Developing Minds Conference, National Academies of Sciences Sackler Colloquia, Irvine, CA.
  - 15. Choi, K., Kirkorian, H. L., Pempek, T. A., Schroeder, E. L, & Etta, R. A. (2015, October). The impact of contextual differences on toddlers' object retrieval using touchscreens [Poster Presentation]. Biennial Meeting of the Cognitive Development Society, Columbus, OH.
  - 14. Kirkorian, H. L., Choi, K., Pempek, T. A., Schroeder, E. L., & Etta, R. A. (2015, May). Toddlers' learning from interactive vs. non-interactive mediated experiences using touchscreens [Paper Presentation]. Annual Meeting of the International Communication Association, San Juan, PR.
  - 13. Kirkorian, H. L., Choi, K., Schroeder, E., Pempek, T. A., & Etta, R. A. (2015, May). *Toddlers' learning from video: The role of cognitive-control skills* [Paper Presentation]. Annual Meeting of the International Communication Association, San Juan, PR.
  - 12. Choi, K., Kirkorian, H. L., Pempek, T. A., & Schroeder, E. L. (2015, March). Toddlers' object retrieval using touchscreens: The role of working memory skills [Paper Presentation]. Biennial Meeting of the Society for Research in Child Development in Philadelphia, PA.
  - 11. Kirkorian, H. L., Choi, K., Schroeder, E. L., & Etta, R. A. (2015, March). Object retrieval using interactive video: The role of visual selection in learning from screens [Paper Presentation]. Biennial Meeting of the Society for Research in Child Development in Philadelphia, PA.
- 2014 10. Kirkorian, H. L., Choi, K., Pempek, T. A., & Schroeder, E. L. (2014, June). Tod-dlers' learning from interactive and non-interactive video on touchscreens [Poster Presentation]. Biennial Meeting of the International Society on Infant Studies in Berlin, Germany.
  - 9. Choi, K., Schroeder, E. L., & Kirkorian, H. L. (2014, May). Toddlers' learning from touchscreens: Object retrieval using interactive vs. non-interactive video [Paper Presentation]. Annual Meeting of the Midwestern Psychological Association, Chicago, IL.
- 8. Choi, K., & Kirkorian, H. L. (2013, November). Attention, comprehension, and learning from video: Evidence from eye movement studies [Poster Presentation]. Workshop on Learning to Attend, Attending to Learn: Neurological, behavioral, and computational perspectives, San Diego, CA.
  - 7. Kirkorian, H. L., & Choi, K. (2013, October). Age differences in top-down control of visual attention during video viewing [Paper Presentation]. Biennial Meeting of the Cognitive Development Society, Memphis, TN.

- 6. Vigna, A., Choi, K., Clarkson, A., Hickey, E., Burgess-Hull, A., Burnson, C., Runion, H., Sheche, J., & Pinela, C. (2013, October). The development, assessment, and impact of a low-cost mindfulness meditation outreach program for a university campus community [Poster Presentation]. Conference for Contemplative Practices to Promote Child and Family Well-Being, Madison, WI.
- **5.** Choi, K., & Kirkorian, H. L. (2013, April). Object retrieval using contingent vs. non-contingent video on touchscreens [Poster Presentation]. Biennial Meeting of the Society of Research in Child Development, Seattle, WA.
- 4. Choi, K., Kirkorian, H. L., Hanson, K. G., & Anderson, D. R. (2013, April). The impact of background television and parent-child interaction on young children's toy play [Poster Presentation]. Biennial Meeting of the Society of Research in Child Development, Seattle, WA.
- 3. Kirkorian, H. L., Choi, K., & Pempek, T. A. (2013, April). Toddlers' word-learning from contingent vs. non-contingent video on touchscreens [Paper Presentation]. Biennial Meeting of the Society of Research in Child Development, Seattle, WA.
- 2012 **2.** Kirkorian, H., & **Choi, K.** (2012, June). Eye-tracking techniques for studying age differences in online processing of video [Poster Presentation]. Workshop on Eye Tracking Methodology in Child and Infant Research, Minneapolis, MN.
  - 1. Burgess-Hull, A., Burnson, C., Choi, K., Hickey, E., Pinela, C., Runion, H., Samuelson, A., Sheche, J., & Vigna, A. (2012, April). *The development, assessment, and impact of a mindfulness meditation outreach program* [Poster Presentation]. International Symposia of Contemplative Studies, Denver, CO.

## Intramural Seminars

- Choi, K. (2023, April 3). Children's learning from contemporary and emerging interactive technologies. Biological Systems Engineering Seminar, Blacksburg, VA.
- Choi, K. (2023, Dec 22). Children and technology research. Learning Lunch Series, The Asian Cultural Engagement Center, Virginia Tech, VA.
  - Choi, K. (2022, May 2). Act, Dance, Sing, and Learn with social robots: Child-robot musical theater for informal STEAM education. Center for Humanities, Virginia Tech, VA. Virtual.
- Choi, K. (2021, March 3). How do we perceive and learn from robots? Center for Humanities, Virginia Tech, VA. Virtual.
- Choi, K. (2020, February 19). Children's active learning with technology. Center for Humanities, Virginia Tech, VA. Virtual.
- Choi, K. (2017, October). Young children's transfer of learning from interactive and noninteractive media, Talk presented at Cognitive Brain and Behavior Brownbag, Department of Psychology, Rutgers University Newark.

- Choi, K. (2013, May). The influence of media on children's development, Talk presented at Scholarly SoHE, School of Human Ecology, UW-Madison.
- Choi, K. (2013, May). Object retrieval using contingent vs. non-contingent video on touchscreens, Poster presented at the Wisconsin Alumni Research Foundation Discovery Challenge, UW-Madison.
- Choi, K. (2013, April). The role of individual differences in cognitive skills in children's learning through educational media, Poster presented at the School of Human Ecology Student Poster & Project Exhibition, UW-Madison.
- Choi, K. (2013, February). The impact of background television and parent-child interaction on young children's toy play. Talk presented at Professional Development Seminar in Human Development & Family Studies, UW-Madison.

2012

- Choi, K. (2012, May). Children's learning from touchscreens: Object retrieval using interactive vs. non-interactive Video, Poster presented at the Wisconsin Alumni Research Foundation Discovery Challenge, UW-Madison.
- Choi, K. (2012, April). Touchscreens and early childhood mathematics, Poster presented at the School of Human Ecology Student Poster & Project Exhibition, UW-Madison.
- Choi, K. (2012, April). NSF research grant proposal Children's learning from touchscreens: Object retrieval using interactive vs. non-interactive video, Talk presented at Professional Development Seminar in Human Development & Family Studies, UW-Madison.

#### **TEACHING**

#### Lead Instructor

Fall 2024

- HD 5514 & HD5974 Research Methods (CRN: 86195) + Lab (CRN: 86200) 8 graduate students
- HD 4994 (CRN: 86187) Undergraduate Research: Children & Technology 7 undergraduate students
- HD 5964 TS: HD Research Team 1 graduate students (1 credit hour)

- Spring 2024 HD 1004 (CRN: 16271) Childhood and Adolescence 74 undergraduate students
  - HD 1004 (CRN: 16275) Childhood and Adolescence 79 undergraduate students (Virtual)
  - HD 4994 (CRN: 16318) Undergraduate Research: Children & Technology 8 undergraduate students
  - HD 5964 TS: HD Research Team 1 graduate students (1 credit hour)

**FALL 2023** 

• HD 1004 (CRN: 86113) - Human Development I: Conception to Adolescence 119 undergraduate students

- HD 4994 (CRN: 86144) Undergraduate Research: Children & Technology 7 undergraduate students, 1 volunteer
- HD 5514 & HD5974 Research Methods (CRN: 86157) + Lab (CRN: 86161) 8 graduate students

#### **Spring** 2023

- HD 1004 (CRN: 16201) Human Development I: Conception to Adolescence 71 undergraduate students
- HD 1004 (CRN: 21304) Human Development I: Conception to Adolescence 74 undergraduate students
- HD 4994 (CRN: 16255) Undergraduate Research: Children & Technology 9 undergraduate students, 2 volunteers

#### Fall 2022

- HD 1004 (CRN: 85980) Human Development I: Conception to Adolescence 117 undergraduate students
- HD 4994 (CRN: 86020) Undergraduate Research: Children & Technology 11 undergraduate students, 3 volunteers
- $\bullet$  HD 5514 & HD5974 Research Methods (CRN: 86028) + Lab (CRN: 86038) 8 graduate students

#### **Spring** 2022

- HD 1004 (CRN: 10637) Human Development I: Conception to Adolescence 79 undergraduate students
- HD 1004 (CRN: 10638) Human Development I: Conception to Adolescence 77 undergraduate students (Virtual)
- HD 4994 (CRN: 16084) Undergraduate Research: Children & Technology 6 undergraduate students, 2 volunteers
- HD 5964 TS: HD Research Team 1 graduate students (1 credit hour)

#### Fall 2021

- HD 1004 (CRN: 85680) Human Development I: Conception to Adolescence 77 undergraduate students (Virtual)
- HD 4994 (CRN: 92576) Undergraduate Research: Children & Technology 5 undergraduate students, 3 volunteers
- $\bullet$  HD 5514 & HD 5974 Research Methods (CRN: 85747) + Lab (CRN: 93212) 9 graduate students
- HD 5964 TS: HD Research Team 1 graduate students (1 credit hour)

#### **Spring** 2021

• HD 4994 (CRN: 15950) - Undergraduate Research: Children & Technology 5 undergraduate students, 5 volunteers

## Fall 2020

- HD 1004 (CRN: 85528) Human Development I: Conception to Adolescence 74 undergraduate students (Virtual)
- HD 4994 (CRN: 92606) Undergraduate Research: Children & Technology 3 undergraduate students, 7 volunteers

- SPRING 2020 HD 1004 (CRN: 15429) Human Development I: Conception to Adolescence 74 undergraduate students
  - HD 3014 (CRN: 19961) Research Methods in Human Development 47 undergraduate students
  - HD 4994 (CRN: 21521) Undergraduate Research: Children & Technology 10 undergraduate students, 5 volunteers
- Fall 2019 HD 1004 (CRN: 85117) Human Development I: Conception to Adolescence 121 undergraduate students
  - HD 4994 (CRN: 91019, 91544) Undergraduate Research: Children & Technology 10 undergraduate students, 4 volunteers
  - HD 5514 (CRN: 85161) Research Methods 8 graduate students
- SPRING 2019 HD 1004 (CRN: 15080) Human Development I: Conception to Adolescence 57 undergraduate students
  - HD 4994 (CRN: 19013) Undergraduate Research: Children & Technology 2 undergraduate students, 1 volunteer
- Fall 2018 HD 1004 (CRN: 84910) Human Development I: Conception to Adolescence 77 undergraduate students (Virtual)

#### Research Supervisor

FALL 2017 - PSYC 21:830:491 - Section 19: Research in Psychology

SPRING 2018 Rutgers University - Newark (Instructor: Dr. Elizabeth Bonawitz)

Supervised 2-4 undergraduate research assistants per semester

Fall 2016 - PSYC 182E - 001: Laboratory in Psychology (Developmental)
University of California, Riverside (Instructor: Dr. Rebekah Richert)
Supervised 3-9 undergraduate research assistants per quarter

Fall 2012 - HDFS 592: Research Experience in HDFS

Spring 2016 University of Wisconsin-Madison (Instructor: Dr. Heather Kirkorian)

Supervised 3-8 undergraduate students per semester

## Guest Instructor Graduate student mentee

Fall 2022 • EDEC 445: Administration of Programs for Young Children Radford University (Instructor: Dr. Boyoung Park)

Children's learning from digital media technology in early childhood Presented with <sup>G</sup>Kim, J. and <sup>G</sup>Yu, S.

SPRING 2022 • EDEC 445: Administration of Programs for Young Children Radford University (Instructor: Dr. Boyoung Park)

Children's learning from digital media technology in early childhood

SPRING 2021 • HD 5224: Child Development in the Family Context Virginia Tech (Instructor: Dr. Caroline Hornburg)

Cognitive Development: Attention, Media/Technology

• HDFS Graduate Student Anti-Racism Book Club

Virginia Tech (Organizer: Jessica Resor)

White Logic, White Methods, Part VI: The Practice of Racial Research and Conclusion

FALL 2020 • HD 6004: Prof Development Seminar Virginia Tech (Instructor: Dr. Cynthia Smith)

Child and adolescent development article discussion

Spring 2020 • HD 6004: Prof Development Seminar

Virginia Tech (Instructor: Dr. Cynthia Smith)

Types of Conference Presentations

• HD 1004: Human Development I

Virginia Tech (Instructor: Dr. Kee Jeong Kim)

Ethology and Ecology

FALL 2019 • Comm 5494: Media, Tech, Society: Media and Youth

Virginia Tech (Instructor: Dr. Adrienne Ivory)

Children's learning from non-interactive and interactive media

• HD 5974: Teaching Seminar

Virginia Tech (Instructor: Ms. Victoria Lael)

Faculty panel on perspectives on teaching for graduate student instructors of record

Spring 2019 • HD 6004: Prof Development Seminar

Virginia Tech (Instructor: Dr. Cynthia Smith)

Job searching in academia and submitting articles to journals

Fall 2018 • HD 6004: Prof Development Seminar

Virginia Tech (Instructor: Dr. Cynthia Smith)

Prosem hot topic: Digital media and child and adolescence development

Fall 2015

• HDFS 425: Research Methods in Human Development and Family Studies University of Wisconsin-Madison (Instructor: Dr. Janean Dilworth-Bart) Experimental designs in research

• HDFS 469: Family and Community Influences on the Young Child University of Wisconsin-Madison (Instructor: Ms. Lauren Lewis) The influence of background TV on children's play and parent-child interaction

• HDFS 474: Racial Ethnic Families in U.S.

University of Wisconsin-Madison (Instructor: Dr. Lynet Uttal)

The influence of media on children's racial attitude and behaviors

• HDFS 616: Mass Media and Youth

University of Wisconsin-Madison (Instructor: Dr. Heather Kirkorian)

Transfer of learning and Interactive Media

• HDFS 474: Racial Ethnic Families in U.S. (002) University of Wisconsin-Madison (Instructor: Ms. Lauren Lewis) Children, Race, Ethnicity, and Media

#### **MENTORSHIP**

Dissertation Supervision (Chair) [3] 2 Chair, 1 Co-Chair

2020 -

• Jisun Kim (in progress)

Present

- Dissertation Topic: The impact of dialogic storybook reading with an artificial intelligence agent on preschoolers' mathematics learning

2022 -

• Shuqi Yu (in progress)

Present

- Dissertation Topic: The role of race in parenting stress among Asian and White parents of children with autism in the United States

2024 -

• Mahmut Sami Gürdal (in progress; Co-Chair)

Present

- Dissertation Topic: Self-regulation and screen use

Master's Thesis Supervision (Chair) [1] 1 Co-Chair

2022 - 2024

- Mahmut Sami Gürdal, M.S. in HDFS Child and Adolescent Development (completed Spring 2024; Co-Chair)
  - Thesis: Emotion regulation and screen use among parents of toddlers: A moderating role of parental personality

## Visiting Graduate Scholar [1] 1 Faculty Sponsor

2024 -Present

- Meryem Şeyda Özcan, Ph.D. Candidate in Developmental Psychology at Koç University (in progress; Faculty Sponsor)
  - Project: Understanding the role of digital media on young children's executive functions

## <u>Postdoctoral Fellow</u> [1] 1 Faculty Co-Sponsor

2024 -Present

- Carla Macias, National Science Foundation Postdoctoral Fellow (in progress; Faculty Co-Sponsor)
  - Project: STEMEdIPRF: Looking beyond screen time: Exploring the relationship between diverse media experience, educational expectations, and learning in children - Carla Macias (PI); Kimele Persaud (Faculty Primary Sponsor), Koeun Choi (Faculty
  - Carla Macias (P1); Kimele Persaud (Faculty Primary Sponsor), Koeun Choi (Faculty Co-Sponsor)

## Temporary Advisee at Virginia Tech [1] 1 Temporary Advisor

2021 - 2022 • Madelyn Toman, M.S./Ph.D. Student

## Committee Member [12] 6 MS, 6 PhD

2023 - • Sulakna Karunaratna, M.S. in Computer Science (in progress)

Present • Marrium Mansoor, Ph.D. in Human Development and Family Science (in progress)

• Maegan Reinhardt, Ph.D. in Human Development and Family Science (in progress)

• Elayna Seago, Ph.D. in Human Development and Family Science (in progress)

2023 - 2024 • Daniel Vargas-Diaz, M.S. in Computer Science (completed in Spring 2024)

2021 - 2023 • Marrium Mansoor, M.S. in Human Development and Family Science (completed in Spring 2023)

• Caroline Taylor, Ph.D. in Psychology (completed in Spring 2023)

2020 - 2023 • Candy Beers, Ph.D. in Human Development and Family Science (completed in Spring 2023)

2019 - 2023 • Diana Devine, Ph.D. in Human Development and Family Science (completed in Fall 2023)

2019 - 2021 • Jessica Resor, Ph.D., Human Development and Family Science (completed in Fall 2021)

• Shuqi Yu, M.S. in Human Development and Family Science (completed in Spring 2021)

• Caroline Taylor, M.S., Psychology (completed in Spring 2021)

#### Graduate Research Assistants at Virginia Tech [6] 2 MS, 4 PhD

Summer 2023 • Mahmut Gurdal (PhD in progress)

2022 - 2023 • Maddie Toman (PhD in progress)

• Shuqi Yu (PhD in progress)

2020 - Jisun Kim (PhD in progress)

2019 - 2020 • Jessica Resor

- Currently an IRB coordinator, the Office or Research at the University of Cincinnati

2018 - 2020 • Eunkyung Lucy Shin

- Hired as a Postdoctoral Research Associate at the Fralin Biomedical Research Institute at the Virginia Tech Carilion School of Medicine (VTC)

- Currently an Assistant Research Professor in the Department of Psychology at Penn State University.

## Graduate Teaching Assistants at Virginia Tech [7]

FALL 2023 • Maegan Reinhardt (HD 1004), Jisun Kim (HD 5514)

FALL 2022 • Shuqi Yu (HD 1004), Jisun Kim (HD 5514)

Fall 2021 • Diana Devine (HD 5514)

Fall 2020 • Candy Beers (HD 1004)

Fall 2019 • Shawnice Johnson (HD 1004)

## Undergraduate Research Assistants at Virginia Tech [46]

Sp23-Present• Junwoo Seo, Hailey Annibell, Monika Khadka

F23 - SP23 • Ilan Litvak, Rahul Bhamidipati, Bailey Vaughn, Alethia Holstein, Alia Konold

F23 • Christine Lolavar, Ahmed (Belal) Qazizada

Spr 23 • Lauren Meier

F22 - F23 • Maggie Ashley

F22 - SP23 • Sebastian Ballesteros, Angel Appiadu-Manu, Alina Tseng, Maggie Ashley, Zainab Shamim, Yilin Liu

F22 • Sraavya Gudavalli, Richard Martinez

SP22 - F22 • Laura Zhang Zhang, Ursilia Beckles, Luke Janoschka

Spring 2022 • Ava Morris, Julia Place

F21 - SP23 • Yullie Kwak

F21 • Naheda Nassan

F21 - SP23 • Jordan Teel

SP21 - F23 • Martha Drapac

F19 - Sp22 • Breanne De Vera

F19 - F21 • Ava Bir, Michelle Tran, Taylor Covington

F19 - SP21 • Anvitha Metpally, Eman Ayaz

SP20 - F21 • Molly Simek, Caroline Kammer

F19 - F20 • Ally Copeland

F19 - S20 • Eva Catherine Grumbine, Valerie Salmon

F19 - SP20 • Rhea Bhatia, Sara Belay

SP19 - SP21 • Bethany Grocock, Katie Johnson

Su19 • Rachel Metts

Sp19 • Ashleigh Bedwell

## Undergraduate Field Study at Virginia Tech [4]

F23 - SP24 • Alethia Holstein

F22 - Sp23 • Sebastian Ballesteros

F23 • Maggie Ashley

Su21-F21 • Julia Ricci

## <u>Undergraduate Honors Credit at Virginia Tech</u> [1]

Fall 2020 • Martha Drapac

## Undergraduate Advising at Virginia Tech at Virginia Tech

SPRING 2021 - • Advising 10-14 students of Childhood Pre-Education (CPED) or Human Development Fall 2023 (HD) Major per semester

#### EDITORIAL ACTIVITIES

## Associate Editor [1]

2024 -

• Korean Journal of Child Studies

Present

## Editorial Board [7]

2023 -

• Journal of Experimental Child Psychology

Present

- Korean Journal of Human Development
- Korean Journal for Infant Mental Health

2022 -

• Journal of Applied Developmental Psychology

Present

• Frontiers in Psychology

2021 -

• Media Psychology

Present

2019 -

• Korean Journal of the Society for Cognitive Enhancement and Intervention

Present

## Ad-Hoc Journal Reviewer

- British Journal of Developmental Psychology
- British Journal of Educational Technology
- Child Development
- Computers and Education
- Developmental Science
- Education Sciences
- Educational Psychology
- European Journal of Psychology of Education
- Frontiers in Psychology
- Human Behavior and Emerging Technologies
- Infancy
- Infant Behavior and Development
- Infant Child Development
- International Journal of Behavioral Development
- International Journal of Human-Computer Interaction
- Journal of Applied Developmental Psychology
- Journal of Children and Media
- Journal of Cognition and Development
- Journal of Experimental Child Psychology
- Korean Journal of Cognitive Enhancement and Intervention
- Media Psychology
- PLOS ONE
- Scientific Reports

Conference Sub	omission Reviewer [11] <sup>G</sup> Graduate student mentee
2023	• Reviewer for the 2024 Association of Computing Machinery (ACM) Conference on Human Factors in Computing Systems (CHI)
2022	$\bullet$ Reviewer for the 2023 Biennial Meeting of the Society for Research in Child Development as a Mentor (Mentee: $^GShuqi~Yu)$
2021	<ul> <li>Reviewer for the 2022 Biennial Meeting of the Society for Research on Adolescence as a Mentor (Mentees: <sup>G</sup>Jisun Kim, <sup>G</sup>Shuqi Yu)</li> <li>Reviewer for the 2021 Annual American Psychological Association (APA) Conference on Technology, Mind, and Society</li> </ul>
2020	$\bullet$ Reviewer for the 2021 Biennial Meeting of the Society for Research in Child Development as a Mentor (Mentee: $^{\rm G}{\rm Jisun~Kim})$
2019	• Reviewer for the 2020 Special Topics Meeting of the Society for Research in Child Development, Learning through Play and Imagination
2018	$\bullet$ Reviewer for the 2019 Biennial Meeting of the Society for Research in Child Development
2017	• Reviewer for the 2018 Technology, Mind and Society Conference of the American Psychological Association
2016	<ul> <li>Reviewer for Doctoral Consortium at the 2016 Special Topics Meeting of the Society for Research in Child Development</li> <li>Student Reviewer for the 2016 Special Topics Meeting of the Society for Research in Child Development, Technology and Media in Children's Development (Mentor: Dr. Kaveri Subrahmanyam)</li> </ul>
2012	• Student Reviewer for the 2013 Biennial Meeting of the Society for Research in Child

## SERVICE TO THE PROFESSION

## Grant Proposal Reviews [2]

2024	• Review Panel, National Science Foundation, Division of Research on Learning in
	Formal and Informal Settings

Development, Panel 26: Contexts of Child Development: Family, Neighborhood,

Child Care, Media, & Religious Institutions (Mentor: Dr. Heather Kirkorian)

• Ad Hoc Reviewer, National Science Foundation, Division of Developmental Science

## Conference Symposium Organizer and Chair [9]

2023

- Chair, The impact of socially interactive technologies on parent-child interactions and young children's learning.
  - Symposium presented at the biennial meeting of Society for Research in Child Development, Salt Lake City, UT.

2022

- Co-Organizer (Choi, K., & Kirkorian, H.L), Digital Media and Cognitive Development.
  - Cognitive Development Society Pre-conference Workshop, Madison, WI.
- Chair, Emerging Technologies and Cognitive Development.
  - Symposium presented at the Cognitive Development Society Pre-conference Workshop, Madison, WI.
- Co-Organizer (Bhatti, N., Kelliher, A., Hiniker A., Choi, K., Shahid, S., Ammari, T., Xu, Y., Murad, C., & Michelson, R.), Technology for children at home: Exploring ways to support caregivers with screen and voice based technology.
  - Association for Computing Machinery (ACM) International Conference on Supporting Group Work (GROUP) Workshop, Virtual

2020

• Chair, Temperament and Technology.

Symposium presented at the Occasional Temperament Conference, Blacksburg, VA.

2019

- Co-Organizer (Kirkorian, H.L., Richert, R. R., & Choi, K), Digital Media and Cognitive Development.

  Cognitive Development Society Pre-conference Workshop, Louisville, KY.
- Chair, Direct and Indirect Learning from Digital Media. Symposium Presented at the Cognitive Development Society Pre-conference Workshop, Louisville, KY.

2017

• Co-Organizer (Richert, R. R., Kirkorian, H.L., & Choi, K), Digital Media and Cognitive Development.

Cognitive Development Society Pre-conference Workshop, Portland, OR.

2016

• Chair, *Understanding children's learning from interactive touchscreens*. Symposium presented at the Special Topics Meeting on Technology and Media in Children's Development of the Society for Research in Child Development, Irvine, CA.

## Academic Community [5]

2021 -Present • Regional Representative (Southeast) for the Korean American Early Childhood Researchers Association (KAECRA)

2021

• Mentor for the Asian Caucus Mentoring session at the 2021 Biennial Meeting of the Society for Research in Child Development

2020 -Present • Member of the Board of Directors, Korean Association of Child Studies

2019 - Present	• Member of the Board of Directors, Korean Psychological Association, Developmental Psychology Division
2013 - 2017	• Student representative to the Interdisciplinary Committee on the Student and Early Career Council (SECC) in Society for Research in Child Development (SRCD)
SERVICE TO	THE UNIVERSITY

## SERVICE TO THE UNIVERSITY Virginia Tech [2]

2021 - 2022

<u>Virginia Tech</u>	[2]			

2018 - 2023 • Department Representative, College of Liberal Arts and Human Sciences Library Committee, Virginia Tech

• Advisory Board Member, The Office of Undergraduate Research, Virginia Tech

## Department of Human Development and Family Science at Virginia Tech [5]

2023 -	• Departmental Awards Committee (HDFS), Virginia Tech
Present	
2022 - 2023	• Faculty Search Committee Member - Department Head Search Committee (HDFS), Virginia Tech

• Child and Adolescent Development Area Coordinator, Virginia Tech Present

2019 - 2020 • Faculty Search Committee Member - Faculty Search Committee (HDFS; Marriage and Family Therapy), Virginia Tech

• Faculty Search Committee Member (Diversity Advocate) - Faculty Search Committee (HDFS; Child and Adolescent Development), Virginia Tech

#### SERVICE TO THE COMMUNITY

## Invited Community Workshops and Presentations [6]

2024	• The impacts of digital technology on of research on children's health, Presentation scheduled at the Virginia Joint Commission on Healthcare, Richmond, VA
	• Young children and technology, Presentation at the New River Valley (NRV) Virginia Association for the Education of Young Children (VAEYC) Meeting, Pulaski, VA
2020	• Screen time for children: Guidance for parents, Presentation at the Virginia Tech Parent Teacher Association Meeting, Blacksburg, VA
2016	• Children and screens: New media and new guidance for parents, Co-presentation at the webcast for the UW Extension Family Living Program, Madison, WI
2015	• The impact of technology on learning and development, Wisconsin Early Childhood Association Annual Meeting, Madison, WI
2014	• Helping young children learn and grow seminar, Talk at the 2014 Wisconsin 4-H & Youth Conference, Madison, WI

#### Media Contributions

2020

• Screen time and young children with Koeun Choi, Curious Conversation Podcast

• Children befriend robots in playful after-school research program, VT News

• School's back, now what? How to navigate education on and offline during the global pandemic. Experts tips for parents newsletter on going back to school, *Children and Screens* 

## Outreach Projects [25] <sup>G</sup>Graduate student mentee

• Let's read together! Children's storybook reading with conversational AI.

- Exhibit at the ICAT Creativity and Innovation Day, Blacksburg, VA.
- Faculty Mentor supporting <sup>G</sup>Jisun Kim
- Research on storytelling with conversational AI and social robots.
  - Hands-on Booth at the Hokie for a Day Event, Blacksburg, VA.
  - Faculty Mentor supporting <sup>G</sup>Seyda Ozcan
- Research on conversational AI agents.
  - Hands-on Booth at the Belview Elementary STEM Family Night, Radford, VA.
  - Faculty Mentor supporting <sup>G</sup>Mahmut Gurdal
- Let's play with robot friends!
  - Hands-on Activities for the Week of the Young Child at the Child Development Center for Learning and Research (CDCLR), Blacksburg, VA.
  - Organizer
- Math games and robots.
  - Hands-on Booth at Virginia Tech YMCA Healthy Kids Day Outreach.
  - Collaborator (Organizer: Caroline Hornburg)
- Preschoolers' mathematical language learning during book reading with an AI smart speaker.
  - Poster Presentation and Demonstration at the Virginia Association for the Education of Young Children (VAEYC) Teacher Conference, Blacksburg, VA.
  - Faculty Mentor supporting <sup>G</sup>Jisun Kim.
- Child-robot theater afterschool program.
  - 11-Week Afterschool Program at the Eastern Montgomery Elementary School, Elliston, VA.
  - Collaborator (Organizer: Myounghoon Jeon)
- Math masterminds.
  - Exhibit at the Hokie for a Day Expo, Blacksburg, VA.
  - Collaborator (Organizer: Caroline Hornburg).
- Conversational AI and social robots for storytelling.
  - Exhibit at the Virginia Tech Science Festival, Blacksburg, VA.
  - Faculty Mentor supporting <sup>G</sup>Shuqi Yu

- Conversational AI for children's learning.
  - Demonstration at the Virginia Tech Humanities Week, Blacksburg, VA.
  - Faculty Mentor supporting <sup>G</sup>Jisun Kim
- Robotics summer camp.
  - Summer Camp at the Valley Interfaith Child Care Center, Blacksburg, VA
  - Organizer
- Hi robot friends!
  - Hands-on Activities for the Week of the Young Child at the Child Development Center for Learning and Research (CDCLR), Blacksburg, VA.
  - Organizer
- Child-robot theater preschool program.
  - 7-Week Afterschool Program at the Valley Interfaith Child Care Center, Blacksburg, VA
  - Organizer
- Child-robot theater afterschool program.
  - 13-Week Afterschool Program at the Eastern Montgomery Elementary School, Elliston, VA.
  - Collaborator (Organizer: Myounghoon Jeon)
  - Hang out with robots.
    - Exhibit at the Virginia Tech Science Festival, Blacksburg, VA.
    - Collaborator (Organizer: <sup>G</sup>Jia Dong)
  - Child-robot theater preschool program.
    - 7-Week Afterschool Program at the Child Development Center for Learning and Research, Blacksburg, VA.
    - Organizer
  - Robot musical theater for STEAM.
    - Exhibit at the ICAT Creativity + Innovation Day, Blacksburg, VA.
    - Co-Organizer (Organizer: GJia Dong)
  - Robot musical theater.
    - Performance and Presentation at the 2022 Ut Prosim Seminar, Blacksburg, VA.
    - Co-Organizer (Organizer: Myounghoon Jeon)
  - Robot musical theater.

- Presentation at the ICAT Playdate, Blacksburg, VA.
- Co-Organizer (Organizer: <sup>G</sup>Jia Dong)
- Child-Robot theater afterschool program.
  - 13-Week Afterschool Program at the Eastern Montgomery Elementary School, Elliston, VA. Collaborator
  - Climate change: Your voice is important (robot musical theater).
    - Performance at the Virginia Tech Science Festival, Blacksburg, VA. Co-Organizer (Organizer:  $^{\rm G}$  Yeaji Lee)

- Look, think, and play: Mobile eye tracking and math games.
  - Eye-tracking technology Zoom outreach meetup sessions at the Virginia Tech Science Festival (Virtual), Blacksburg, VA.
  - Organizer

- Do you know what I'm looking at? Tracking eye movements during math games.
- Eye-tracking technology Zoom outreach meetup sessions at the Virginia Tech Science Festival (Virtual), Blacksburg, VA.
- Organizer
- Are you still watching? Using eye-tracking to understand learning from mobile media.
   Institute for Creativity, Arts, and Technology (ICAT) Creativity + Innovation Day (Virtual), Blacksburg, VA.
  - Organizer

2019

- What are you looking at?
  - Eye-tracking station at the Virginia Tech Science Festival, Blacksburg, VA.
  - Organizer

#### Professional Society Memberships

2023 -

• International Society for the Study of Behavioural Development

Present

• Society for Applied Research in Memory and Cognition

2020 -

• Korean Association of Child Studies

Present

2019 -

• Korean Society for Cognitive Enhancement and Intervention

Present

• Korean Psychological Association, Developmental Psychology Division

2017 -

• Cognitive Science Society

Present

2015 -

• Cognitive Development Society

Present

2012 -

• International Congress of Infant Studies

Present

2011 -

• Society for Research in Child Development

Present