Koeun Choi April 2022

CONTACT Information 305 Wallace Hall 295 West Campus Drive

Human Development and Family Science

Virginia Tech

Blacksburg, Virginia 24061 USA

RESEARCH INTERESTS My research program focuses on the role of technology in young children's cognitive development to better understand and support learning in early childhood. Technological innovations influence our everyday lives, including young children and their families. My research examines how technology impacts children's attention and learning, and the extent to which its impact is influenced by family processes and social contexts. I employ multiple methods such as experiments, individual difference measures, eye-tracking, and computational approaches to guide developmentally appropriate practices for technology integration. My research has covered a diverse set of topics on children and emerging technologies, including attention and learning from mobile media such as touchscreens, perception of and learning from robots, and child screen time and parenting. My research aims to inform parents, educators, producers, designers, health professionals, and policy makers on how to design and use technological tools to support young children's learning.

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Phone: (540) 231-5720

WWW: kchoi.org

**EDUCATION** 

### University of Wisconsin-Madison, Wisconsin, USA

Ph.D., Human Development and Family Studies (Minor: Educational Psychology), May 2016

- Dissertation: Toddlers' learning from touch screens: The role of working memory
- Advisor: Dr. Heather Kirkorian
- Minor Advisor: Dr. Haley Vlach

## Seoul National University, Seoul, South Korea

M.A., Child Development and Family Studies, August 2011

- Thesis: Two-, three-, and four-year-olds' use of accuracy cues in word learning
- Advisor: Dr. Soon Hyung Yi

#### Seoul National University, Seoul, South Korea

B.A., Family and Child Studies / Psychology, March 2008

• Cum Laude

Professional Positions Department of Human Development and Family Science

Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA

Assistant Professor in Human Development and Family Science

08/2018 - Present

• The Center for Humanities Affiliated Faculty Member

09/2019 - Present

Department of Psychology

Rutgers University-Newark, New Jersey, USA

Postdoctoral Fellow (PI: Dr. Elizabeth Bonawitz)

09/2017-07/2018

Department of Psychology

University of California, Riverside, California, USA

Postdoctoral Scholar (PI: Dr. Rebekah Richert)

07/2016- 06/2017

### Work Experience

Department of Human Development and Family Studies University of Wisconsin-Madison, Wisconsin, USA Graduate Project Assistant (PI: Dr. Heather Kirkorian)

08/2012 - 05/2016

Lead Teacher

02/2008 - 01/2009

Hynix Child Care Center, Icheon, South Korea

### Awards and Honors

Outstanding Undergraduate Research Mentor Award from the Office of Undergraduate	Research at
Virginia Tech	2021
Top Paper Award from the Children, Adolescents, and Media Division of International	2018
Communication Association (Kirkorian, Choi, Yoo, & Etta)	
Top Paper Award from the Children, Adolescents, and Media Division of International	2017
Communication Association (Kirkorian, Choi, & Anderson)	
Society for Research in Child Development Early Career Travel Award (\$500)	2017
Human Development & Family Studies Outstanding Research Award (\$400)	2016
Sackler Colloquia National Academy of Sciences Travel Award (\$1,000)	2015
Schurch-Thomson Graduate Research Award (\$2,000)	2015
Human Development & Family Studies Summer Research Award (\$1,500/yr)	2014-2015
Human Development & Family Studies Travel Award (\$500/yr)	2013-2016
Meyers Fund of the School of Human Ecology Travel Award (\$500/yr)	2014 - 2016
McPherson ERI David G. Walsh Research Travel Award (\$1,000)	2013
Viola Baker Endowment School of Human Ecology Travel Award (\$500)	2013
Human Development & Family Studies Outstanding Research Scholarship Award	2013
Society for Research in Child Development Travel Award (\$300)	2013
Korean Honor Scholarship sponsored by the Embassy of the Republic of Korea (\$1,000	<b>2012</b>
Graduate Student Academic Award, Korea Institute of Child Care & Education (\$500)	2010
Seoul National University Entrance Scholarship, Seoul National University	2003

# PEER REVIEWED JOURNAL ARTICLES

6 corresponding author (4 first author, 2 senior author), 7 co-author Student co-authors; \*Corresponding author

2022

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

- **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. 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., Raimer, C., Tolkin, E., & 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. Shin, E., \*Choi, K., 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

2020

Kirkorian, H. L., Travers, B., Jiang, M., Choi, K., Rosengren K. S., Pavalko P., & 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

2019

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., Pavalko, P., & Jobin, P. (2018). Knowing how to fold 'em: Paper folding across early childhood. *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
- 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

Peer-Reviewed

Papers in Conference Proceedings

2 first author

Student co-authors; \*Corresponding author

2022

3. Lee, Y., Wyatt, A., Dong, J., Upthegrove, T., Hale, B., Lyles, C. H., \*Choi, K., Kim, J., Yu, S., Vajir, 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

2019

2. \*Choi, K., 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

\*Choi, K., 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. http://mindmodeling.org/cogsci2018/papers/0061/index.html

## MANUSCRIPTS IN PREPARATION

- . Choi, K., Schlesinger, M. A., Franchak, J. M, & Richert, R. A. (in prep). Preschoolers use others' effort as a cue to selective attention and imitation: An eye-movement study.
- . Choi, K., Lapidow, E., Austin, J., Shafto, P., & Bonawitz, E. (in prep). Preschoolers are more likely to direct learning content questions to adults than to other children (or selves) during spontaneous conversational acts.
- . Choi, K., Grados, M., & Bonawitz, E. (in prep). Child-led play supports parents to make flexible and exploratory causal inferences.
- . Choi, K., Kim, J., Yu, S., Shin, E., & Smith, C. L. Maternal media beliefs moderate the relation between parenting stress and toddlers' screen use.

#### BOOK CHAPTERS

2 co-author

- 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. Springer. https://doi.org/10.1007/978-3-319-45102-2\_5
- 1. Yi, S., Kim, M., Gun, K., Jung, J., Song, M., & Choi, K. (2011). Early childhood education program of intergenerational integration: Integrating early childhood program series. Seoul: Hakjisa.

#### RESEARCH SUPPORT

#### External Funding

PI: Koeun Choi

• Small Grant - \$49.946.00

The Spencer Foundation

Pending

Co-PI: Myounghoon Jeon

Proposal: Act, Sing, and Dance with Robots: Development and Evaluation of a Child-Robot Musical Theater Program for Preschoolers' STEAM Learning (2023-2025)

Role: Principal Investigator

 $\bullet$  Convergence Research - \$366,106.68

National Research Foundation of Korea

PI: Jin-Young Chae

Pending

Co-PI: Yeonjoo Jung, Koeun Choi, Myungho Lee, Byeong-Hwan Jeon, Jee Eun Oh Proposal: Using augmented reality · virtual reality technology to promote preschoolers' English learning through integration of Science, Technology, Engineering, Arts, Mathematics, and Physical activities (STEAMPa) (2023-2026)

Role: Co-Principal Investigator

• Science of Learning and Augmented Intelligence - \$780,505 PI: Koeun Choi

National Science Foundation

Pending

Co-PI: Myounghoon Jeon, Tae-Ho Lee

Proposal: Investigating the psychological process and neural basis of learning from robots in early childhood (2022-2025)

Role: Principal Investigator

## Internal Funding

Institute for Creativity, Arts, and Technology (ICAT) Mini Grant - \$2,912
 Virginia Tech
 PI: Neelma Bhatti
 July 1, 2021 - May 31, 2022
 Co-PIs: Koeun Choi, Scott McCrickard, Aisling Kelliher

Proposal: Evaluating commercial screen-based devices for children's connection and engagement with remote contacts

Role: Co-Principal Investigator

• Institute for Creativity, Arts, and Technology (ICAT) Grant; Center for Human-Computer Interaction (CHCI) matching funds - \$26,000 Virginia Tech

PI: Myounghoon Jeon

July 1, 2021 - May 31, 2022

Co-PIs: Koeun Choi, Phyllis Newbill, Tanner Upthegrove, Ariana Wyatt, Chelsea Lyles

Proposal: Robot musical theater for promoting STEAM education and integrated art performances

Role: Co-Principal Investigator

- The Center For Humanities Professional Development Grant \$1,500
   PI: Koeun Choi
   Role: Principal Investigator
   Virginia Tech
   September 19, 2019 May 31, 2021
- Institute for Society, Culture, and Environment Unsolicited Grant \$4,360
   PI: Koeun Choi
   Co-PI: Cynthia L. Smith

  August 12, 2019 December 31, 2019

Proposal: Child temperament and early screen time: The mediating role of parental stress Role: Principal Investigator

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

Role: Principal Investigator

• Institute for Creativity, Arts, and Technology (ICAT) Science, Engineering, Art, and Design (SEAD) Grant - \$25,000 Virginia Tech PI: Koeun Choi July 1, 2019 - May 31, 2021

PI: Koeun Choi Co-PIs: Benjamin D. Katz, Adrienne Holz Ivory, Gota Morota

Proposal: Mobile learning across the life span: Processing and learning information from mobile media technology in children, young adults, and older adults

Role: Principal Investigator

 $\bullet\,$  New Faculty Mentoring Project Grant -  $\$1,\!500$ 

Virginia Tech

PI: Koeun Choi

sources

June 1, 2019 - May 31, 2021

Proposal: Active mentoring to advance research in children and technology

Role: Principal Investigator

# INVITED PRESENTATIONS

8 domestic and 4 international

- 13. Choi, K. (2021, November 26). Young children's digital media use and safety Talk scheduled at the meeting of the Korean Association of Human Ecology. South Korea. Virtual.
- 12. Choi, K. (2021, November 13). Digital media and child development Talk scheduled at 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.
- 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.
- 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.
- 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.
- 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.
- 2. Choi, K. (2015, December). Touch or watch to learn? Children's learning from interactive media, Children's Digital Media Center. Georgetown University, WA.
- 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 PRESENTATIONS

#### Student co-authors

2022

- 48. Yu, S., Dong, J., Kim, J., Lee, Y., 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 [Paper Presentation scheduled (4/23)]. The 2022 Biennial Meeting of the Cognitive Development Society. Madison, WI.
- 47. Kim, J., & Choi, K. (2022, April 21-23). Q&A on Zoom for preschooler: The impact of on-screen partner's questions on preschoolers' word learning and memory of content from shared book reading over video chat [Paper Presentation scheduled (4/23)]. The 2022 Biennial Meeting of the Cognitive Development Society. Madison, WI.

2021

- **46**. **Choi, K.**, Grados, M., & Bonawitz, E. (2021, April 7-9). *Child-led play supports adults' exploratory causal inferences* [Paper Presentation (4/9)]. The 2021 Biennial Meeting of the Society for Research in Child Development. Virtual.
- 45. Macias, C., & Choi, K. (2021, April 7-9). Preschoolers' beliefs about different symbolic media: The role of socioeconomic backgrounds [Paper Presentation (4/8)]. The 2021 Biennial Meeting of the Society for Research in Child Development. Virtual.
- 44. Choi, K., Kim, J., 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)]. The 2021 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)]. The 2021 Biennial Meeting of the Society for Research in Child Development. Virtual.

2020

- 42. 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., 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]. The Special Topics Meeting of the Society for Research in Child Development: Learning through Play and Imagination, St. Louis, MO.

2019

**40**. **Choi, K.**, 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)].

- **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)]. The Biennial Meeting of the Cognitive Development Society, Louisville, KY.
- 38. Macias, C., Shaban, F., Bonawitz, E., & Choi, K. (2019, October 17-19). The effect of socioe-conomic status on young children's perceptions about media devices [Poster Presentation (10/17)]. The Preconference Workshop on Digital Media and Cognitive Development at the Biennial Meeting of the Cognitive Development Society, Louisville, KY.
- 37. Choi, K., 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)]. The 41th 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)]. The 45th 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)]. The 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)]. The 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)]. The 40th 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)]. The 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)]. The 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)]. The 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)]. The 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)]. The 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)]. The 67th 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

2018

- books: Effects of platform and interactivity [Paper Presentation (5/29)]. The 67th 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)]. The 67th 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)]. The 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)]. The 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)]. The 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 presented at the 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. Talk presented at the 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 presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- 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 presented at the 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 presented at the 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). Tod-dlers' learning from interactive vs. non-interactive mediated experiences using touchscreens. Talk presented at the 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. Talk presented at the 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. Talk presented at the 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. Talk presented at the biennial meeting of the Society for Research in Child Development in Philadelphia, PA.
- 10. Kirkorian, H. L., Choi, K., Pempek, T. A., & Schroeder, E. L. (2014, June). *Toddlers' learning from interactive and non-interactive video on touchscreens*. Poster presented at the 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:

2016

2015

Object retrieval using interactive vs. non-interactive video. Talk presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

2013

- 8. Choi, K., & Kirkorian, H. L. (2013, November). Attention, comprehension, and learning from video: Evidence from eye movement studies. Poster presented at Learning to attend, attending to learn: Neurological, behavioral, and computational perspectives, San Diego, CA.
- Kirkorian, H. L., & Choi, K. (2013, October). Age differences in top-down control of visual attention during video viewing. Talk presented at the 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 presented at the 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 presented at the 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 presented at the 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. Talk presented at the 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 presented at the Eye Tracking Methodology in Child and Infant Research, Minneapolis, MN.
- 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 presented at the International Symposia of Contemplative Studies, Denver, CO.

Intramural Seminars

2021

• Choi, K. (2021, March 3). How do we perceive and learn from robots? Center for Humanities, Virginia Tech, VA. Virtual.

2020

• Choi, K. (2020, February 19). Children's active learning with technology. Center for Humanities, Virginia Tech, VA. Virtual.

2017

• Choi, K. (2017, October). Young children's transfer of learning from interactive and non-interactive 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.

- 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

Lead Instructor	
$\bullet$ HD 1004 (CRN: 10637) - Human Development I: Conception to Adolescence	Spring 2022
80 undergraduate students	
• HD 1004 (CRN: 10638) - Human Development I: Conception to Adolescence	Spring 2022
78 undergraduate students (Virtual)	G
• HD 4994 (CRN: 16084) - Undergraduate Research: Children & Technology	Spring 2022
6 undergraduate students, 2 volunteers	G
item HD 5964/7994 - Research and Dissertation	Spring 2022
1 graduate students (3 credit hours)	C 2022
HD 5964 - TS: HD Research Team     senduate students (1 enedit boun)	Spring 2022
1 graduate students (1 credit hour)  4 HD 1004 (CRN: 85680) Human Davidenment I: Conception to Adolescence	Fall 2021
• HD 1004 (CRN: 85680) - Human Development I: Conception to Adolescence 80 undergraduate students (Virtual)	Fall 2021
• HD 5514 & HD5974 (CRN: 85747) - Research Methods + Lab	Fall 2021
9 graduate students	Faii 2021
• HD 4994 (CRN: 92576) - Undergraduate Research: Children & Technology	Fall 2021
5 undergraduate students, 3 volunteers	Faii 2021
• HD 5964/7994 - Research and Dissertation	Fall 2021
2 graduate students (3 credit hours)	Faii 2021
• HD 5964 - TS: HD Research Team	Fall 2021
1 graduate students (1 credit hour)	1411 2021
• HD 4994 (CRN: 15950) - Undergraduate Research: Children & Technology	Spring 2021
5 undergraduate students, 5 volunteers	~P11118 =0=1
• HD 7994 - Research and Dissertation	Spring 2021
1 graduate student (4 credit hours)	
• HD 1004 (CRN: 85528) - Human Development I: Conception to Adolescence	Fall 2020
74 undergraduate students (Virtual)	
• HD 4994 (CRN: 92606) - Undergraduate Research: Children & Technology	Fall 2020
3 undergraduate students, 7 volunteers	
• HD 7994 - Research and Dissertation	Fall 2020
1 graduate student (3 credit hours)	
• HD 3014 (CRN: 19961) - Research Methods in Human Development	Spring 2020
47 undergraduate students	
• HD 4994 (CRN: 21521) - Undergraduate Research: Children & Technology	Spring 2020
10 undergraduate students, 5 volunteers	
• HD 1004 (CRN: 15429) - Human Development I: Conception to Adolescence	Spring 2020
77 undergraduate students	
• HD 5514 (CRN: 85161) - Research Methods	Fall 2019
8 graduate students	
• HD 4994 (CRN: 91019, 91544) - Undergraduate Research: Children & Technolog	gy Fall <b>2019</b>
10 undergraduate students, 4 volunteers	
• HD 1004 (CRN: 85117) - Human Development I: Conception to Adolescence	Fall 2019
122 undergraduate students	a
• HD 4994 (CRN: 19013) - Undergraduate Research: Children & Technology	Spring 2019
2 undergraduate students, 1 volunteer	

• HD 1004 (CRN: 15080) - Human Development I: Conception to Adolescence Spring 2019 57 undergraduate students Fall 2018 • HD 1004 (CRN: 84910) - Human Development I: Conception to Adolescence 77 undergraduate students (Virtual) Research Supervisor • 21:830:491 - Section 19: Research in Psychology Fall 2017 - Spring 2018 Rutgers University - Newark (Instructor: Dr. Elizabeth Bonawitz) Supervised 2-4 undergraduate research assistants per semester • PSYC 182E - 001: Laboratory in Psychology (Developmental) Fall 2016 - Spring 2017 University of California, Riverside (Instructor: Dr. Rebekah Richert) Supervised 3-9 undergraduate research assistants per quarter Fall 2012 - Spring 2016 • HDFS 592: Research Experience in HDFS University of Wisconsin-Madison (Instructor: Dr. Heather Kirkorian) Supervised 3-8 undergraduate students per semester Guest Instructor • EDEC 445: Administration of Programs for Young Children Spring 2022 Radford University (Instructor: Dr. Boyoung Park) Children's learning from digital media technology in early childhood (3/30/22)• HD 5224: Child Development in the Family Context Spring 2021 Virginia Tech (Instructor: Dr. Caroline Hornburg) Cognitive Development: Attention, Media/Technology (5/3/21) • HDFS Graduate Student Anti-Racism Book Club Spring 2021 Virginia Tech (Organizer: Jessica Resor) White Logic, White Methods, Part VI: The Practice of Racial Research and Conclusion (4/15/21) Fall 2020 • HD 6004: Prof Development Seminar Virginia Tech (Instructor: Dr. Cynthia Smith) Child and adolescent development article discussion (10/9/20)• HD 6004: Prof Development Seminar Spring 2020 Virginia Tech (Instructor: Dr. Cynthia Smith) Types of Conference Presentations (3/6/20)Spring 2020 • HD 1004: Human Development I Virginia Tech (Instructor: Dr. Kee Jeong Kim) Ethology and Ecology (2/3/19; 2/5/19)• Comm 5494: Media, Tech, Society: Media and Youth Fall 2019 Virginia Tech (Instructor: Dr. Adrienne Ivory) Children's learning from non-interactive and interactive media (10/8/19) Fall 2019 • HD 5974: Teaching Seminar Virginia Tech (Instructor: Ms. Victoria Lael) Faculty panel on perspectives on teaching for graduate student instructors of record (8/27/19) • HD 6004: Prof Development Seminar Spring 2019 Virginia Tech (Instructor: Dr. Cynthia Smith) Job searching in academia and submitting articles to journals (4/12/19)• HD 6004: Prof Development Seminar Fall 2018 Virginia Tech (Instructor: Dr. Cynthia Smith) Prosem hot topic: Digital media and child and adolescence development (8/31/19) 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 Fall 2015 • 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

Fall 2015

• 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

Fall 2015

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 Fall 2015

## Advisees and Trainees

### Graduate Student (1)

• Jisun Kim, Ph.D. Student, 8/17/2020-present

### Temporary Advisee (1)

• Madelyn Toman, M.S./Ph.D. Student, 8/16/2021-present

## Committee Member - Current (5)

- Diana Devine, Ph.D., Human Development and Family Science
- Caroline Taylor, M.S./Ph.D., Psychology
- Shuqi Yu, M.S./Ph.D., Human Development and Family Science
- Candy Beers, Ph.D., Human Development and Family Science
- Marrium Mansoor, Ph.D., Human Development and Family Science

## Committee Member - Completed (3)

- Jessica Resor, Ph.D., Human Development and Family Science
- Caroline Taylor, M.S., Psychology
- Shuqi Yu, M.S. Human Development and Family Science

#### Graduate Research Assistants at Virginia Tech

- Eunkyung Lucy Shin 8/13/2018-5/2020; Hired into postdoctoral research associate position at Fralin Biomedical Research Institute at Virginia Tech Carilion School of Medicine (VTC)
- Jessica Resor 8/26/2019-5/2020
- Jisun Kim 8/17/2020-present

## Graduate Teaching Assistants at Virginia Tech

- Shawnice Johnson 8/26/2019-12/20/2019
- Candy Beers 8/17/2020-12/18/2020

### Undergraduate Research Assistants at Virginia Tech

- Ashleigh Bedwell, 1/22/2019-5/17/2019
- $\bullet$  Rachel Metts, 8/12/2019-8/23/2019
- Bethany Grocock, Katie Johnson, 1/22/2019-5/14/2021
- Sara Belay, 6/1/2019-5/2020
- Rhea Bhatia, 8/26/2019-5/2020
- Eva Catherine Grumbine, Valerie Salmon, 8/26/2019-5/2020
- Ally Copeland, 8/26/2019-12/18/2020
- Molly Simek, Caroline Kammer, 1/21/2020-12/28/2020
- Anvitha Metpally, Eman Ayaz, 8/26/2019-5/14/2021
- Ava Bir, Michelle Tran, Taylor Covington, 8/26/2019-12/15/2021
- Breanne De Vera, 8/26/2019-Present
- Martha Drapac, 1/18/2021-12/15/2021
- Jordan Teel, 1/18/2021-Present
- Naheda Nassan, 5/18/2021-12/15/2021
- Yullie Kwak, 5/18/2021-Present
- Ava Morris, Julia Place, Ursilia Beckles, Laura Zhang Zhang, Luke Janoschka, 1/18/2022-Present

#### Undergraduate Field Study at Virginia Tech

• Julia Ricci, 5/24/2021-12/15/2021

## Undergraduate Honors Credit at Virginia Tech

• Martha Drapac, 8/24/2020-12/20/2020

#### Undergraduate Advising at Virginia Tech

• 14 students in Childhood Pre-Education (CPED) Major

Spring 2021-Present

## EDITORIAL ACTIVITIES

#### Editorial Board

Intervention

Frontiers in Psychology
 Media Psychology
 Korean Journal of the Society for Cognitive Enhancement and
 1/21/2022 - Present
 2/12/2021 - Present
 3/1/2019 - Present

#### Ad-Hoc Journal Reviewer

- British Journal of Developmental Psychology (3), British Journal of Educational Technology (1), Child Development (9), Computers and Education (1), Developmental Science (1), Education Sciences (1), European Journal of Psychology of Education (1), Frontiers in Psychology (1), Human Behavior and Emerging Technologies (1), Infancy (3), Infant Behavior and Development (2), Infant Child Development (2), International Journal of Behavioral Development (1), International Journal of Human-Computer Interaction (2), Journal of Applied Developmental Psychology (3), Journal of Children and Media (4), Journal of Cognition and Development (1), Journal of Experimental Child Psychology (8), Korean Journal of Cognitive Enhancement and Intervention (1), Media Psychology (4), PLOS ONE (2), Scientific Reports (1)
- Number of reviewed papers: 2022 (3), 2021 (15), 2020 (13), 2019 (10), 2018 (5), 2017 (4), 2016 (1), 2015 (1), 2014 (1)

#### Conference Submission Reviewer

- Reviewer for the 2022 Biennial Meeting of the Society for Research on Adolescence (Mentor)
   2021
- Reviewer for the 2021 Annual American Psychological Association (APA) Conference on Technology, Mind, and Society 2021
- Reviewer for the 2021 Biennial Meeting of the Society for Research in Child Development (Mentor)
- Reviewer for the 2020 Special Topics Meeting of the Society for Research in Child Development, Learning through Play and Imagination

  2019
- Reviewer for the 2019 Biennial Meeting of the Society for Research in Child Development 2018
- Reviewer for the 2018 Technology, Mind and Society Conference of the American Psychological Association
- Reviewer for Doctoral Consortium at the 2016 Special Topics Meeting of the Society for Research in Child Development
   2016
- 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)
   2016
- Student Reviewer for the 2013 Biennial Meeting of the Society for Research in Child Development, Panel 26: Contexts of Child Development: Family, Neighborhood, Child Care, Media, & Religious Institutions (Mentor: Dr. Heather Kirkorian)
   2012

## SERVICE TO THE PROFESSION

## Conference Symposium Organizer and Chair

• Co-Organizer, Digital Media and Cognitive Development 2022 Cognitive Development Society Pre-conference Workshop, Madison, WI. 2022

- Chair, Temperament and Technology Symposium
  2020 Occasional Temperament Conference, Blacksburg, VA (November 2)
- Co-Organizer, Digital Media and Cognitive Development 2019 Cognitive Development Society Pre-conference Workshop, Louisville, KY (October 17)
- Chair, Direct and Indirect Learning from Digital Media Panel
  2019 Cognitive Development Society Pre-conference Workshop, Louisville, KY (October 17)
- Co-Organizer, Digital Media and Cognitive Development 2017 Cognitive Development Society Pre-conference Workshop, Portland, OR.
- Chair, Understanding children's learning from interactive touchscreens

  Symposium presented at the 2016 Special Topics Meeting on Technology and Media in Children's

  Development of the Society for Research in Child Development, Irvine, CA.

### Academic Community

- Mentor for the Asian Caucus Mentoring session at the 2021 Biennial Meeting of the Society for Research in Child Development
   4/9/2021
- Member of the Board of Directors, Korean Association of Child Studies 2020 Present
- Member of the Board of Directors, Korean Psychological Association, Developmental Psychology Division
   2019 - Present
- Student representative to the Interdisciplinary Committee on the Student and Early Career Council (SECC) in Society for Research in Child Development (SRCD) 2013 2017

## SERVICE TO THE UNIVERSITY

#### Virginia Tech

Advisory Board Member, The Office of Undergraduate Research (OUR), Virginia Tech 6/9/2021
 Present

## College of Liberal Arts and Human Sciences at Virginia Tech

 $\bullet$  Department Representative, College of Liberal Arts and Human Sciences Library Committee, Virginia Tech 8/1/2018 - Present

#### Department of Human Development and Family Science at Virginia Tech

- Child and Adolescent Development Area Coordinator, Virginia Tech 3/15/2021 present
- Faculty Search Committee Member Faculty Search Committee (HDFS; Marriage and Family Therapy), Virginia Tech
   9/13/2019 3/5/2020
- Faculty Search Committee Member (Diversity Advocate) Faculty Search Committee (HDFS; Child and Adolescent Development), Virginia Tech 12/1/2018 4/30/2019

#### School of Human Ecology at UW-Madison

- $\bullet$  School of Human Ecology (SoHE) Early Childhood Task Force Focus Group, University of Wisconsin-Madison 10/1/2015 10/31/2015
- Department Representative School of Human Ecology Colloquium Committee, University of Wisconsin-Madison 9/1/2012 8/31/2013

#### Human Development and Family Studies Department at UW-Madison

- Professional Development Chair Human Development & Family Studies Graduate Student Organization (GSO), University of Wisconsin-Madison
   5/1/2012 - 9/30/2013
- Member Human Development & Family Studies Graduate Student Organization Graduate Student Organization (GSO), University of Wisconsin-Madison 9/1/2011 5/31/2012

# SERVICE TO THE COMMUNITY

Invited Community Workshops and Presentations Student Co-Presenters

- Screen time for children: Guidance for parents, Presentation (with Resor, J.) at the Virginia Tech Parent Teacher Association Meeting, Blacksburg, VA

  2/7/2020
- Children and screens: New media and new guidance for parents, Co-presentation at the webcast for the UW Extension Family Living Program, Madison, WI 3/3/2016
- The impact of technology on learning and development, Wisconsin Early Childhood Association Annual Meeting, Madison, WI 7/21/2015
- Helping young children learn and grow seminar, Talk at the 2014 Wisconsin 4-H & Youth Conference, Madison, WI 6/25/2014
- The importance of research on children's learning from touchscreens, Presentation at the UW Campus-Affiliated Preschool Director Meeting, Madison, WI
   8/15/2012

### Outreach Project Organizer

- Climate change: Your voice is important (robot musical theater). Performance at the Virginia Tech Science Festival, Blacksburg, VA

  11/6/2021
- 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 10/25/2021
- 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
- What are you looking at? Eye-tracking technology station at the Virginia Tech Science Festival, Blacksburg, VA
   11/19/2019
- Tracking your eye-movements, Eye-tracking exploration station at the Wisconsin Science Festival, Madison, WI

  2013, 2014

#### Consultation

• Consultation for a childcare plan during the science festival for Education and Outreach Manager,
Wisconsin Science Festival, Madison, WI
2013

#### Media Contributions

- 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* **2020**
- Professional Society Memberships
- Korean Association of Child Studies. 2020 Present
- Korean Society for Cognitive Enhancement and Intervention. 2019 Present
- Korean Psychological Association, Developmental Psychology Division. 2019 Present
- Cognitive Science Society. 2017 Present
- Cognitive Development Society. 2015 Present
- International Congress of Infant Studies 2012 Present
- Society for Research in Child Development. 2011 Present

References

References and additional information available upon request.