



**CURRICULUM VITAE
OF
SHANNON M. PRUDEN
DEPARTMENT OF PSYCHOLOGY
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EDUCATION

Degree	Institution	Field	Dates
Ph.D.	Temple University	Developmental Psychology	2001-2007
M.A.	San Francisco State University	Developmental Psychology	1999-2001
B.A.	University of California, San Diego	Cognitive Science	1994-1999
B.A.	University of California, San Diego	Psychology	1994-1999

FULL-TIME ACADEMIC EXPERIENCE

Rank	Institution	Field	Dates
Associate Chair	Florida International University	Psychology Department	2024-present
Professor	Florida International University	Psychology Department	2023-present
Associate Professor	Florida International University	Psychology Department	2016-2023
Director of Graduate Studies	Florida International University	Psychology Department	2021-2024
Program Director (Developmental Science)	Florida International University	Psychology Department	2016-2020
Assistant Professor	Florida International University	Psychology Department	2010-2016
Postdoctoral Scholar	University of Chicago	Developmental Psychology	2009-2010
Postdoc T32 Fellow	University of Chicago	Developmental Psychology	2007-2008

PART-TIME ACADEMIC EXPERIENCE

Rank	Institution	Field	Dates
Graduate Assistant	Temple University Infant Labs	Developmental Psychology	2001-2006
Graduate Assistant	Temple University Personality & Social Development Lab	Developmental Psychology	2005
Statistical Consultant	Edelman Institute for the Study of Children, Youth, Families (SFSU)	Developmental Psychology	2000-2001
Lab Coordinator	SFSU Infant Cognition Lab	Developmental Psychology	2000-2001
K-3 Literacy Tutor	America Reads Program (UCSD)	Education	1998-1999
Research Assistant	UCSD Developmental Studies Lab	Developmental Psychology	1997-1998
Research Assistant	Hubbs-Sea World Research Institute	Cognitive Science	1997-1998

EMPLOYMENT RECORD AT FLORIDA INTERNATIONAL UNIVERSITY

Rank	Dates
Professor (Psychology)	2023-present
Associate Professor (Psychology)	2016-2023
Assistant Professor (Psychology)	2010-2016

PUBLICATIONS IN DISCIPLINE [h-index = 22; i10-index = 38; Citations = 2789; 61 publications]

[Note: ★ indicates trainee currently/formerly under my supervision]

<https://scholar.google.com/citations?user=bTpp8cUAAAAJ&hl=en>

Manuscripts Under Review

4. ★Hall, L.V., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., ★Overton, D., & **Pruden, S.M.** (under review). *Parents' social behaviors and math talk: Does mental rotation ability play a role?* Manuscript under review at *Cognitive Development*.
3. ★Mattox, N., ★Wu, Y., ★Bowley, H., ★Vieites, V., ★Ralph, Y., ★Lioi, P., Hayes, T., Dick, A.S., Mattfeld, A., & **Pruden, S. M.** (under review). *Volumetric correlates of spatial reorientation in early childhood*. Manuscript under review at *Developmental Science*.
2. ★Wu, Y., ★Mattox, N., ★Bowley, H., ★Vieites, V., ★Rengel, M., ★Ralph, Y., Hayes, T., Dick, A.S., Mattfeld, A., & **Pruden, S. M.** (under review). *Wayfinding experience is associated with spatial reorientation in 4- to 6-year-olds*. Manuscript under review at *Journal of Environmental Psychology*.
1. Smith, D.D., Bartley, J.E., Peraza, J.A., Bottenhorn, K.L., Riedel, M.C., Salo, T., Laird, R.W., **Pruden, S.M.**, Sutherland, M.T., Brewe, E., & Laird, A.R. (under review). *Hippocampal functional connectivity changes associated with active and lecture-based physics learning*. Manuscript under review at *Imaging Neuroscience*. <https://doi.org/10.1101/2025.09.22.677908>

PsyArXiv Preprints/BioArXiv Preprints

3. ★Garcia, N.L., ★Hall, L., & **Pruden, S.M.** (2021). *Individual differences in young children's spatial ability: A systematic review*. <https://doi.org/10.31234/osf.io/5mc2y>
2. Bottenhorn, K.L., Bartley, J.E., Riedel, M.C., Salo, T., ★Bravo, E.I., ★Odean, R., ★Nazareth, A., Laird, R.W., Musser, E.D., **Pruden, S.M.**, Brewe, E., Sutherland, M.T., & Laird, A.R. (2021). *Intelligence and academic performance: Is it all in your head?* <https://doi.org/10.1101/2021.01.23.427928>
1. Bartley, J.E., Riedel, M.C., Salo, T., Bottenhorn, K.L., Boevig, E.R., Laird, R.W., Sutherland, M.T., **Pruden, S.M.**, Brewe, E., & Laird, A.R. (2019). *Sex and pedagogy influences in learning-related reorganization of brain activity*. <https://doi.org/10.1101/791301>

Journal Articles

40. ★Mattox, N., ★Saladrigas, K., ★Rodriguez, V., ★Bowley, H., ★Vieites, V., ★Wu, Y., ★Ralph, Y., ★Lioi, P., Hayes, T., Dick, A.S., Mattfeld, A., & **Pruden, S. M.** (2026). The relation between spatial language comprehension and mental transformation during early childhood. *Cognitive Development*, 77, 101663. <https://doi.org/10.1016/j.cogdev.2025.101663>
39. Curtis, M., Alfano, A.R., Bayat, M., Murphy, D., **Pruden, S.M.**, Graziano, P., & Dick, A.S. (2025). Neurobiological contributions to speech and language interventions: Applications to developmental populations. *Developmental Neuropsychology*, 1–30. <https://doi.org/10.1080/87565641.2025.2581699>

38. Dick, A.S., Comer, J.S., Bayat, M., Curtis, M., Hayes, T., **Pruden, S.M.**, Hawes, S., Gonzalez, R., Laird, A.R., & Graziano, P. (2025). Meaningful associations redux: Quantifying and interpreting effect size in the context of the Adolescent Brain and Cognitive Development Study. *Developmental Cognitive Neuroscience*, 76, 101630. <https://doi.org/10.1016/j.dcn.2025.101630>
37. Smith, D.D., Bartley, J.E., Peraza, J.A., Bottenhorn, K.L., Nomi, J.S., Uddin, L.Q., Riedel, M.C., Salo, T., Laird, R.W., **Pruden, S.M.**, Sutherland, M.T., Brewe, E., & Laird, A.R. (2025). Dynamic reconfiguration of brain coactivation states associated with active and lecture-based learning of university physics. *NPJ Science of Learning*, 10(1), 55. <https://doi.org/10.1038/s41539-025-00348-9>
36. ★Rodriguez, K., ★De La Rosa, I., ★Rey Ochoa, C., ★Pinto Corro, O., ★Ralph, Y., & **Pruden, S.M.** (2025). Leveraging eye-tracking technology to understand how young children solve a mental rotation task. *Infant and Child Development*, 34(3), e70018. <http://dx.doi.org/10.1002/icd.70018>
35. Curtis, M., Bayat, M., Garic, D., Alfano, A., Hernandez, M., Curzon, M., Bejarano, A., Tremblay, P., **Pruden, S. M.**, Graziano, P., & Dick, A. S. (2025). Structural development of speech networks in young children: A cross-sectional study. *Neurobiology of Language*, 1-34. https://doi.org/10.1162/nol_a_00168
34. ★Garcia-Sanchez, N.L, Dick, A.S., Hayes, T., & **Pruden, S.M.** (2024). Registered Report: Direct and indirect effects of parent spatial ability on child spatial ability: What role does the home environment play? *Developmental Science*, 27(4), e13480 <http://doi.org/10.1111/desc.13480>
33. ★Vieites, V., ★Ralph, Y., Reeb-Sutherland, B., Dick, A.S., Mattfeld, A.T., & **Pruden, S.M.** (2024). Neurite density of the hippocampus is associated with trace eyeblink conditioning latency in 4- to 6-year-olds. *European Journal of Neuroscience*, 59(3), 358-369. <https://doi.org/10.1111/ejn.16217>
32. ★Desme, C., Dick, A.S., Hayes, T., & **Pruden, S.M.** (2024). Individual differences in emerging adults' spatial abilities: What role do affective factors play? *Cognitive Research: Principles and Implications*, 9, 13. <https://doi.org/10.1186/s41235-024-00538-w>
31. ★Odean, R., ★Abad, C., ★Ralph, Y., & **Pruden, S.M.** (2024). Individual differences in preschoolers' spatial thinking: Comprehension of dimensional adjectives and their relation to children's performance on non-verbal spatial tasks. *Infant and Child Development*, 33(3), e2484. <https://doi.org/10.1002/icd.2484>
30. ★Hall, L.V., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., ★Overton, D., & **Pruden, S.M.** (2023). "You did a great job building that!" Links between parent-child prosocial talk and spatial language. *Developmental Psychology*, 59(9), 1676–1690. <https://doi.org/10.1037/dev0001574>
29. Smith, D., Meca, A., Bartley, J., Salo, T., Peraza, J.A., Bottenhorn, K., **Pruden, S.M.**, Sutherland, M.T., Brewe, E., & Laird, A. (2023). Task-based attentional and default mode connectivity associated with science and math anxiety profiles among university physics students. *Trends in Neuroscience and Education*, 32, 100204. <https://doi.org/10.1016/j.tine.2023.100204>
28. Dick, A.S., ★Ralph, Y., Farrant, K., Reeb-Sutherland, B., **Pruden, S.M.**, & Mattfeld, A. (2022). Volumetric development of hippocampal subfields and hippocampal white matter connectivity: Relationship with episodic memory. *Developmental Psychobiology*, 64(8), e22333. <https://doi.org/10.1002/dev.22333>
27. ★Garcia, N.L., Dick, A.S., & **Pruden, S.M.** (2022). Contributions of executive function to spatial thinking in young children. *Infant and Child Development*, 31(4), e2317. <https://doi.org/10.1002/icd.2317>

26. ★Alvarez-Vargas, D., ★Abad, C., & **Pruden, S.M.** (2020). Spatial anxiety mediates the sex difference in adult mental rotation performance. *Cognitive Research: Principles and Implications*, 5, 31. <https://doi.org/10.1186/s41235-020-00231-8>
25. ★Vieites, V., **Pruden, S.M.**, & Reeb-Sutherland, B. (2020). Childhood wayfinding experience explains sex and individual differences in adult wayfinding strategy and anxiety. *Cognitive Research: Principles and Implications*, 5, 12. <https://doi.org/10.1186/s41235-020-00220-x>
24. ★Vieites, V., **Pruden, S.M.**, Shusterman, A., & Reeb-Sutherland, B. (2020). Using hippocampal-dependent eyeblink conditioning to predict individual differences in spatial reorientation strategies in 3- to 6-year-olds. *Developmental Science*, 23(1), e12867. <https://doi.org/10.1111/desc.12867>
23. Bartley, J.E., Riedel, M.C., Salo, T., Boevig, E.R., Bottenhorn, K.L., ★Bravo, E.I., ★Odean, R., ★Nazareth, A., Laird, R.W., Sutherland, M.T., **Pruden, S.M.**, Brewe, E., & Laird, A.R. (2019). Brain activity links performance in science reasoning with conceptual approach. *Nature Partner Journal – Science of Learning*, 4, 20. <https://doi.org/10.1038/s41539-019-0059-8>
22. Gonzalez, A., Bottenhorn, K.L., Bartley, J.E., Hayes, T., Riedel, M.C., Salo, T., ★Bravo, E.I., ★Odean, R., ★Nazareth, A., Laird, R.W., Sutherland, M.T., Brewe, E., **Pruden, S.M.**, & Laird, A.R. (2019). Sex differences in brain correlates of STEM anxiety. *Nature Partner Journal – Science of Learning*, 4, 18. <https://doi.org/10.1038/s41539-019-0058-9>
21. Dick, A. S., ★Garcia, N. L., **Pruden, S. M.**, Thompson, W. K., Hawes, S. W., Sutherland, M., Riedel, M., Laird, A., & Gonzalez, R. (2019). No evidence for a bilingual executive function advantage in the ABCD Study. *Nature Human Behaviour*, 3, 692-701. <https://doi.org/10.1038/s41562-019-0609-3>
20. Bahrick, L., McNew, M., **Pruden, S.M.**, & Castellanos, I. (2019). Intersensory redundancy promotes infant detection of prosodic changes in infant-directed speech. *Journal of Experimental Child Psychology*, 183, 295-309. <https://doi.org/10.1016/j.jecp.2019.02.008>
19. ★Nazareth, A., Killick, R., Dick, A.S., & **Pruden, S.M.** (2019). Strategy selection versus flexibility: Using eye-trackers to investigate strategy use during mental rotation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 45, 232-245. <https://doi.org/10.1037/xlm0000574>
18. ★Abad, C., ★Odean, R., & **Pruden, S.M.** (2018). Sex differences in gains among Hispanic pre-kindergartners' mental rotation skills. *Frontiers in Psychology*, 9, 2563. <https://doi.org/10.3389/fpsyg.2018.02563>
17. Brewe, E., Bartley, J. B., Riedel, M. C., Sawtelle, V., Salo, T., Boevig, E.R., ★Bravo, E., ★Odean, R., ★Nazareth, A., Bottenhorn, K.L., Laird, R.W., Sutherland, M.T., **Pruden, S.M.** & Laird, A.R. (2018). Toward a neurobiological basis for understanding learning in university modeling instruction physics courses. *Frontiers in ICT, section Digital Education*, 5, 10. <https://doi.org/10.3389/fict.2018.00010>
16. **Pruden, S.M.**, & Levine, S.C. (2017). Parents' spatial language mediates a sex difference in preschoolers' spatial language use. *Psychological Science*, 28(11), 1583-1596. <https://doi.org/10.1177/0956797617711968> [TV news story on *NBC News Miami* and *Telemundo*; Radio story on *NPR's Academic Minute* and *WIOD 610 AM Brian Mudd Show*]

15. Konishi, H., **Pruden, S.M.**, Golinkoff, R.M., & Hirsh-Pasek, K. (2016). Categorization of dynamic realistic motion events: Infants form categories of path before manner. *Journal of Experimental Child Psychology*, 152, 54-70. <https://doi.org/10.1016/j.jecp.2016.07.002>
14. Song, L., **Pruden, S.M.**, Golinkoff, R.M., & Hirsh-Pasek, K. (2016). Prelinguistic foundations of verb learning: Infants discriminate and categorize dynamic human actions. *Journal of Experimental Child Psychology*, 151, 77-95. <https://doi.org/10.1016/j.jecp.2016.01.004>
13. ★Odean, R., ★Nazareth, A., & **Pruden, S.M.** (2015). Novel methodology to examine cognitive and experiential factors in language development. *Frontiers in Psychology*, 6, 1266. <https://doi.org/10.3389/fpsyg.2015.01266>
12. ★Vieites, V., ★Nazareth, A., Reeb-Sutherland, B.C., & **Pruden, S.M.** (2015). A new biomarker to examine the role of hippocampal function in the development of spatial reorientation in children: A review. *Frontiers in Psychology*, 6, 490. <https://doi.org/10.3389/fpsyg.2015.00490>
11. Garcia, D., Bagner, D.M., **Pruden, S.M.**, & Nichols-Lopez, K. (2015). Language production in children with and at risk for delay: Mediating role of parenting skills. *Journal of Clinical Child and Adolescent Psychology*, 44(5), 814-825. <https://doi.org/10.1080/15374416.2014.900718>
10. ★Abad, C. & **Pruden, S.M.** (2013). Do storybooks really break children's gender stereotypes? *Frontiers in Psychology*, 4, 986. <https://doi.org/10.3389/fpsyg.2013.00986>
9. ★Nazareth, A., ★Herrera, A., & **Pruden, S.M.** (2013). Explaining sex differences in mental rotation: Role of spatial activity experience. *Cognitive Processing*, 14, 201-204. <https://doi.org/10.1007/s10339-013-0542-8>
8. **Pruden, S.M.**, Roseberry, S., Göksun, T., Hirsh-Pasek, K., & Golinkoff, R.M. (2013). Infant categorization of path relations during dynamic events. *Child Development*, 84(1), 331-345. <https://doi.org/10.1111/j.1467-8624.2012.01843.x>
7. Pulverman, R., Song, L., Hirsh-Pasek, K., **Pruden, S. M.**, & Golinkoff, R. M. (2013). Preverbal infants' attention to manner and path: Foundations for learning relational terms. *Child Development*, 84(1), 241-252. <https://doi.org/10.1111/cdev.12030>
6. **Pruden, S.M.**, Göksun, T., Roseberry, S., Hirsh-Pasek, K., & Golinkoff, R.M. (2012). Find your manners: How do infants detect the invariant manner of motion in dynamic events? *Child Development*, 83(3), 977-991. <https://doi.org/10.1111/j.1467-8624.2012.01737.x>
5. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2011). Children's spatial thinking: Does talk about the spatial world matter? *Developmental Science*, 14(6), 1417-1430. <https://doi.org/10.1111/j.1467-7687.2011.01088.x> [Tweeted about by *The White House's Office of Science and Technology Policy*]
4. **Pruden, S.M.**, Hirsh-Pasek, K., Golinkoff, R.M., & Hennon, E.A. (2006). The birth of words: Ten-month-olds learn words through perceptual salience. *Child Development*, 77(2), 266-280. <https://doi.org/10.1111/j.1467-8624.2006.00869.x> [TV news story on *Good Morning America*]
3. Pulverman, R., Hirsh-Pasek, K., **Pruden, S.M.**, & Golinkoff, R. (2006). Frühkindliche Voraussetzungen für das Erlernen von Verben (Precursors to verb learning: Infant attention to manner and path). Special Issue on Early Communication and Language Acquisition in *Frühförderung Interdisziplinär (Journal of Early Interdisciplinary Intervention)*, 25, 3-14.

2. **Pruden, S.M.**, Hirsh-Pasek, K., & Parish, J. (2006). Can infants resolve philosophical questions? A review of Rakison and Oakes' Early Category and Concept Development: Making Sense of the Blooming, Buzzing Confusion. *Philosophical Psychology*, 19, 123-127. <https://doi.org/10.1080/09515080500462438>

1. Hirsh-Pasek, K., Hennon, E., Golinkoff, R.M., Pence, K., Pulverman, R., Sootsman, J., **Pruden, S.M.**, & Maguire, M. (2001). Social attention need not equal social intention: From attention to intention in early word learning. *Behavioral and Brain Sciences*, 24, 1108-1109. <https://doi.org/10.1017/S0140525X01270137>

Proceedings

4. Cartmill, E., **Pruden, S.M.**, Levine, S.C., & Goldin-Meadow, S. (2010). *The role of parent gesture in children's spatial language development*. In K. Franich, K.M. Iserman & L.L. Keil (Eds.), *Proceedings of the 34th Annual Boston University Conference on Language Development* (pp.70-77). Somerville, MA: Cascadilla Press.

3. **Pruden, S.M.**, Shallcross, W.L., Hirsh-Pasek, K., & Golinkoff, R.M. (2008). Foundations of verb learning: Comparison helps infants abstract event components. In H. Chan, H. Jacob & E. Kapia (Eds.), *Proceedings of the 32nd Annual Boston University Conference on Language Development* (pp.402-414). Somerville, MA: Cascadilla Press.

2. **Pruden, S.M.**, & Hirsh-Pasek, K. (2006). Foundations of verb learning: Labels promote action category formation. In D. Bamman, T. Magnitskaia & C. Zaller (Eds.), *Proceedings of the 30th Annual Boston University Conference on Language Development* (pp.476-488). Somerville, MA: Cascadilla Press.

1. **Pruden, S.M.**, Hirsh-Pasek, K., Maguire, M.J., & Meyer, M.A. (2004). Foundations of verb learning: Infants form categories of path and manner in motion events. In A. Brugos, L. Micciulla & C.E. Smith (Eds.), *Proceedings of the 28th Annual Boston University Conference on Language Development* (pp.461-472). Somerville, MA: Cascadilla Press.

Chapters in Books

12. ★Hall, L.V., ★Mattox, N., & **Pruden, S.M.** (2026). *Understanding LENA technology*. In P. Milin (Ed.), *International Encyclopedia of Language and Linguistics*, 3rd Edition.

11. ★Rodriguez, K., ★Mattox, N., ★Desme, C., ★Hall, L.V., ★Wu, Y., & **Pruden, S.M.** (2024). Harnessing technology to measure individual differences in spatial thinking in early childhood from a relational developmental systems perspective. *Advances in Child Development and Behavior*, 67, 236-272. <https://doi.org/10.1016/bs.acdb.2024.07.008>

10. **Pruden, S.M.**, ★Nazareth, A., ★Abad, C., ★Odean, R., ★Bravo, E., & ★Garcia, N. (2020). Movement, space, and the development of spatial thinking. In S. Hupp & J.D. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development*. John Wiley & Sons. <https://doi.org/10.1002/9781119171492.wecad029>

9. ★Nazareth, A., ★Odean, R., & **Pruden, S.M.** (2019). The use of eye tracking in spatial thinking research. In *Early Childhood Development: Concepts, Methodologies, Tools, and Applications* (pp. 588-609). Hershey, PA: IGI Global. DOI: 10.4018/978-1-5225-7507-8.ch029 (Chapter reprinted in new book)

8. **Pruden, S.M.**, & ★Odean, R. (2018). Language development: Motion verb and spatial-relational term acquisition from a developmental systems perspective. In A. Dick & U. Müller (Eds.), *Advancing developmental science: Philosophy, theory, and method* (pp.133-144). New York: Psychology Press/Taylor & Francis.

7. ★Nazareth, A., ★Odean, R., & **Pruden, S.M.** (2017). The use of eye tracking in spatial thinking research. In C.A. Was, F.J. Sansosti, & B.J. Morris (Eds.), *Eye-tracking technology applications in educational research* (pp.239-260). Hershey, PA: IGI Global. DOI: 10.4018/978-1-5225-1005-5
6. ★Costales, A., ★Abad, C., ★Odean, R., & **Pruden, S.M.** (2015). Spatial activities and manipulatives for early education classrooms. In G. Scarlett (Ed.), *The Sage Encyclopedia of Classroom Management, Volume 2* (pp.768-771). Thousand Oaks, CA: Sage Publication.
5. Parish-Morris, J., **Pruden, S.M.**, Ma, W., Hirsh-Pasek, K., & Golinkoff, R.M. (2010). A world of relations: Relational words. In B. Malt & P. Wolff (Eds.), *Words and the mind: How words capture human experience* (pp.219-242). NY: Oxford University Press.
4. **Pruden, S.M.**, Hirsh-Pasek, K., & Golinkoff, R.M. (2008). Current events: How infants parse the world and events for language. In T.F. Shipley & J.M. Zacks (Eds.), *Understanding events: How humans see, represent, and act on events* (pp.160-192). New York: Oxford University Press.
3. Brandone, A., Golinkoff, R.M., Pulverman, R., Maguire, M.J., Hirsh-Pasek, K., & **Pruden, S.M.** (2007). Speaking for the wordless: Methods for studying cognitive linguistic constructs in infants. In M. Gonzalez-Marquez, I. Mittelberg, S. Coulson, & M.J. Spivey (Eds.), *Methods in cognitive linguistics* (pp.345-366). Amsterdam: John Benjamins.
2. Pulverman, R., Hirsh-Pasek, K., Golinkoff, R.M., **Pruden, S.M.**, & Salkind, S. (2006). Conceptual foundations for verb learning: Celebrating the event. In K. Hirsh-Pasek & R.M. Golinkoff (Eds.), *Action meets word: How children learn verbs* (pp.134-159). New York: Oxford University Press.
1. **Pruden, S.M.**, Hirsh-Pasek, K., & Golinkoff, R.M. (2005). The social dimension in language development: A rich history and a new frontier. In P.J. Marshall & N.A. Fox (Eds.), *The development of social engagement: Neurobiological perspectives* (pp.118-152). New York: Oxford University Press.

Other Publications

1. **Pruden, S.**, & ★Rodriguez, K. (October 21, 2025). Even before they can read, young children are visualizing letters and other objects with the same strategies adults use. *The Conversation US*.
<https://doi.org/10.64628/AAI.5gx3mufry>

WORKS IN PROGRESS

4. ★Hall, L.V., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., ★Overton, D., & **Pruden, S.M.** (under revision). *Parents' social behaviors and math talk during block play and drawing*.
3. ★Garcia, N.L., & **Pruden, S.M.** (in preparation). *Mothers STEM interest and anxiety in relation to the early home spatial environment*.
2. ★Desme, C., ★Garcia, N.L., ★Alvarez-Vargas, D., Hayes, T., Dick, A.S., & **Pruden, S.M.** (in preparation). *Direct and indirect effects of confidence, spatial anxiety, and engagement in spatial activities on sex differences in mental rotation ability*.
1. ★Wu, Y., ★Mattox, N., ★Bowley, H., ★Vieites, V., ★Rengel, M., ★Ralph, Y., Hayes, T., Dick, A.S., Mattfeld, A., & **Pruden, S. M.** (in preparation). *Children's spatial toy play and its relations to mental transformation*.

FUNDED RESEARCH

Title/Funding Agency/Grant Number	Role	Amount	Dates
13. <i>Neural correlates of mental rotation</i> Center for Children and Families Trainee Grant, Florida International University (to postdoc *Dr. Yvonne Ralph)	Mentor	\$5,000	2022-2023
12. <i>Child spatial ability: What role do parents play?</i> National Institute of Child Health and Human Development, NRSA F31 Fellowship (to *Nelcida Garcia) #1F31HD105422-01	Mentor	\$81,458	2021-2022
11. <i>Individual Differences in Development of Spatial Skills: Role of Hippocampal Function and Structure</i> National Institute of Child Health and Human Development, R01 #1R01HD098152-01 (with Aaron Mattfeld, co-PI, Anthony Dick and Tim Hayes, co-I's)	PI	\$1,975,458	2019-2023 2023-2024 (NCE)
10. <i>Intersensory Processing, Developmental Trajectories, and Longitudinal Outcomes</i> National Institute of Child Health and Human Development, R01 #R01HD053776-11 (with Lorraine Bahrack, PI, and James Todd, Co-I)	Co-I	\$2,971,559	2019-2024 2024-2025 (NCE)
9. <i>Multisensory Development: New Measures and a Collaborative Database</i> National Institute of Child Health and Human Development, R01 #1R01HD094803-01A1 (with Lorraine Bahrack, PI, & James Todd, Co-I)	Co-I	\$3,016,159	2019-2024 2024-2025 (NCE)
8. <i>A New Biomarker of Hippocampal Functioning in Children and it's Relation to the Development of Spatial Reorientation Abilities</i> Collaborative Research Award, Department of Psychology, Florida International University (with Bethany Reeb-Sutherland, Anthony Dick and Aaron Mattfeld, Co-PIs)	PI	\$8,005	2017-2018
7. <i>Novel Assessment in Children with Selective Mutism and Social Anxiety</i> Collaborative Research Award, Department of Psychology, Florida International University (with Jami Furr, Co-PI)	PI	\$6,000	2017-2018
6. <i>Exploring the Neural Mechanisms of Physics Learning</i> National Science Foundation, DRL-REAL #1420627 (with Angela Laird, PI, & Eric Brews, Co-PI)	Co-PI	\$594,547	2014-2017 2017-2018 (NCE)
5. <i>Early Educator Influence on Sex Differences in Preschooler's Spatial Skills</i> National Science Foundation Graduate Research Fellowship *Carla Abad	Mentor	\$140,967	2014-2017
4. <i>A Longitudinal Study of Individual Differences in Infant Perception of Actions and Children's Later Verb Learning.</i> Intramural Award, Center for Children and Families, Florida International University	PI	\$5,000	2016-2017

3. <i>The Role of Language and Concrete Models in Preschool Math Learning</i> Intramural Award, Center for Children and Families, Florida International University	PI	\$5,000	2015-2016
2. <i>TEAM-UP (Twenty-First Century Educators Advance Math/Science in Underrepresented/Underserved Populations) for Kids</i> The Ware Foundation	PI	\$75,000	2012-2015
1. <i>Children's spatial thinking: Does quality of parent spatial talk matter?</i> Summer Faculty Development Award, College of Arts & Sciences	PI	\$7,500	2011

PROPOSALS UNDER REVIEW

Title/Funding Agency	Role	Amount	Dates
2. <i>Leveraging eye-tracking technology to understand how emerging adults solve spatial tasks</i> National Science Foundation, Graduate Research Fellowship (to *Bridgette Avila) Submitted November 2025	Mentor	\$159,000	2026-2029
1. <i>Navigating the developing brain: Associations between children's wayfinding experience and caudate and hippocampal volume</i> National Science Foundation, Graduate Research Fellowship (to *Abenaa Yamoah) Submitted November 2025	Mentor	\$159,000	2026-2029

PROPOSALS SUBMITTED BUT NOT FUNDED

Title/Funding Agency/Grant Number/Score	Role	Amount	Dates
33. <i>Structural and functional organization of speech and language in young bilingual children</i> National Institute of Child Health and Human Development, R01 (with Anthony Dick, PI, Alliete Alfano, co-PI and Paulo Graziano, Timothy Hayes, Pascale Tremblay, co-Is) Submitted July 2025 Not discussed (January 2026)	Co-I	\$3,630,422	2026-2031
32. <i>Role of parent language input and home toy environment on children's numeracy and spatial skills</i> Brady Foundation Submitted October 2025 Not invited for full submission	PI	\$150,901.57	2026-2028
31. <i>Role of parent language input and concrete model use on children's numeracy and spatial skills</i> Caplan Foundation Submitted September 2025 Not invited for full submission	PI	\$67,596.82	2026-2027

30. <i>Structural and functional organization of speech and language in young bilingual children</i> National Institute of Child Health and Human Development, R01 (with Anthony Dick, PI, Alliete Alfano, co-PI and Paulo Graziano, Timothy Hayes, Pascale Tremblay, co-Is) Administratively withdrawn (May 2025)	Co-I	\$3,630,422	2025-2030
29. <i>Investigating spatial thinking with technology: A focus on eye-tracking data and mental rotation</i> National Institute of Child Health and Human Development, NRSA F31 Fellowship (to *Karinna Rodriguez) Administratively withdrawn (May 2025)	Sponsor	\$82,349	2025-2027
28. <i>Individual differences in spatial reorientation: The role of the hippocampus in early childhood</i> National Institute of Child Health and Human Development, NRSA F31 Fellowship (to *Nick Mattox) Not Discussed (May 2025)	Sponsor	\$83,301	2025-2027
27. <i>Structural and functional organization of speech and language in young bilingual children</i> National Institute of Child Health and Human Development, R01 (with Anthony Dick, PI, Alliete Alfano, co-PI and Paulo Graziano, Timothy Hayes, Pascale Tremblay, co-Is) 1R01HD118051-01 Not Discussed	Co-I	\$3,636,900	2025-2030
26. <i>The Role of Caregiver Language and Concrete Model Use in Explaining Individual Differences in Young Children's Math Skills</i> Spencer Foundation #10054627 Not Funded	PI	\$50,000	2025-2026
25. <i>Individual differences in spatial reorientation: The role of the hippocampus in early childhood</i> National Institute of Child Health and Human Development, NRSA F31 Fellowship (to *Nick Mattox) Not Discussed	Sponsor	\$83,301	2024-2026
24. <i>The dynamic relationship between parent-child positive coregulation and spatial and verbal working memory</i> National Science Foundation #2240638 Not Funded	Co-PI	\$829,265 Subaward to FIU \$195,260	2023-2027
23. <i>Spanish-Speaking Parents Learning English: Quality and Quantity of Adult Language in Parent-Child Conversations</i> National Institute of Child Health and Human Development, R21 # 1R21DC020525-01 Not Discussed	Co-PI	\$405,625	2022-2024

22. <i>Spanish-Speaking Parents Learning English: Quality and Quantity of Adult Language in Parent-Child Conversations</i> National Institute of Child Health and Human Development, R21 #1R21RHD106152A-01 Resubmitted Not Discussed	Co-PI	\$405,625	2021-2023
21. <i>Child spatial ability: What role do parents play?</i> National Institute of Child Health and Human Development, NRSA F31 Diversity Fellowship (to *Nelcida Garcia) 1 F31 HD105422-01A1 Resubmitted. Impact: 32; 33 rd Percentile (Withdrawn - First Submission Funded)	Sponsor	\$81,458	2021-2023
20. <i>Spanish-Speaking Parents Learning English: Quality and Quantity of Adult Language in Parent-Child Conversations</i> National Institute of Child Health and Human Development, R21 #1R21RHD106152A-01 Not Discussed	Co-PI	\$378,922	2021-2023
19. <i>Individual Differences in Development of Spatial Skills: Role of Hippocampal Function and Structure</i> National Institute of Child Health and Human Development, R01 #1R01HD098152-01 Impact: 37; 23 rd Percentile (Discussed: Not Funded)	PI	\$1,966,905	2019-2023
18. <i>Multisensory Development: New Measures and a Collaborative Database</i> National Institute of Child Health and Human Development, R01 #1R01HD094803-01 Impact: 48; 43 rd Percentile (Discussed: Not Funded)	Co-I	\$3,677,680	2018-2022
17. <i>A New Biomarker of Hippocampal Functioning and its Relation to the Development of Spatial Reorientation Abilities in Children</i> National Institute of Child Health and Human Development, R21 #1R21HD090452-01 Not Discussed	PI	\$405,983	2017-2018
16. <i>A Longitudinal Study of Individual Differences in Infant Perception of Actions and Children's Later Verb Learning</i> FIU Office of Provost Humanities Grant Not Funded	PI	\$6,000	2016-2017
15. <i>NSF INCLUDES: Harnessing the Power of Diversity to Train Future Generations of Developmental STEM Scholars</i> National Science Foundation, INCLUDES Not Invited for Full Submission	Co-PI	\$300,000	2018-2020
14. <i>Spatial Language Use of Middle Schoolers in Math and Science Think Alouds</i> National Science Foundation, Graduate Research Fellowship (to *Elsa Bravo)	Mentor	\$138,000	2017-2020

Not Funded

13. <i>The Role of Language and Concrete Models on Preschool Math Learning</i> National Institute of Child Health and Human Development #1R01HD083325-01A1 Impact: 54; 43 rd Percentile (Discussed: Not Funded)	PI	\$2,593,911	2016-2021
12. <i>The Role of Language and Concrete Models on Preschool Math Learning</i> National Institute of Child Health and Human Development #1R01HD083325-01 Impact: 62; 48 th Percentile (Discussed: Not Funded)	PI	\$2,418,957	2015-2020
11. <i>Prekindergarten Educator Impact on Hispanic Immigrant Children's Numeracy Growth</i> Institute of Education Sciences, Department of Education #R305A140291 Not Discussed	PI	\$862,378	2014-2017
10. <i>The Influence of Spatial Language Use in the Home on Toddler's Spatial Language Processing Efficiency</i> National Science Foundation, Graduate Research Fellowship (to *Rosalie Odean) Not funded	Mentor	\$132,000	2014-2017
9. <i>Neuroimaging of Knowledge Organization in Modeling Instruction for Introductory University Physics</i> National Science Foundation #1348720 Ratings: 3 Good, 1 Fair (Not Discussed)	Co-I	\$1,498,621	2014-2018
8. <i>Sources of Individual Differences in Hispanic Children's Numeracy Growth</i> National Science Foundation #1348237 Ratings: 1 Very Good, 1 Good, 2 Fair (Not Discussed)	PI	\$748,126	2014-2017
7. <i>Sources of Individual Differences in Hispanic Children's Numeracy Growth</i> National Institute of Child Health and Human Development 1R15HD079821-01 Impact: 34 (Discussed); No Longer Eligible for R15 as of 4/2014	PI	\$420,000	2014-2017
6. <i>Prekindergarten Educator Impact on Hispanic Immigrant Children's Early Numeracy Skills</i> Foundation for Child Development, Young Scholars Program Not Funded	PI	\$150,000	2013-2015

5. <i>Examining Educators' Spatial Language to Boys and Girls in Pre-K Classrooms</i> ★ Awarded Honorable Mention (to ★Carla Abad) National Science Foundation, Graduate Research Fellowship	Mentor	\$132,000	2013-2016
4. <i>Influence of Maternal Speech on Children's Spatial Language Processing Efficiency</i> National Science Foundation, Graduate Research Fellowship (to ★Rosalie Odean) Not Funded	Mentor	\$132,000	2013-2016
3. <i>Impact of Preschool Educator Competency on High-Needs Child Numeracy Outcome</i> Massachusetts Department of Early Education and Care Not Funded	PI	\$408,664	2012-2015
2. <i>Early Educator Competencies in Social and Emotional Development: A Multi-Level, Multi-Method Study</i> Massachusetts Department of Early Education and Care Not Funded	Co-I	\$271,945	2012-2014
1. <i>Categorization of Motion Events in Infancy</i> NRSA Pre-doctoral Research Training Grant National Institute of Deafness and Other Communication Disorders 1 F31 DC007276-01 Not Funded	PI	\$39,936	2003-2005

PRESENTED PAPERS AND LECTURES

[Note: ★ indicates student or trainee under my supervision]

Invited Presentations

22. **Pruden, S.M.** (2021, July). *On the development of spatial thinking: Causes and consequences of individual differences*. Invited talk to FIU Summer Research Internship (SRI), Florida International University (zoom talk).

21. **Pruden, S.M.** (2021, July). *On the development of spatial thinking: Causes and consequences of individual differences*. Invited talk to Infant Development Lab, Psychology Department, Florida International University (zoom talk).

20. **Pruden, S.M.** (2021, February). *On the development of spatial thinking: Causes and consequences of individual differences*. Invited talk to Development, Education and Cognition Group, Psychology Department, Temple University (zoom talk).

19. **Pruden, S.M.** (2018, May). *Characterizing individual differences in spatial language development: Examining the causes and consequences of variability*. Invited talk to Linguistics Department, University of Iowa, Iowa City, IA.

18. **Pruden, S.M.** (2018, January). *Characterizing individual differences in spatial language development: Examining the causes and consequences of variability*. Invited talk to Communication Sciences and Disorders Department, University of Iowa, Iowa City, IA.

17. **Pruden, S.M.** (2015, April). *Impact of parent and prekindergarten educator language on children's early numeracy and spatial skills*. Invited talk to Developmental Program at the University of Miami, Miami, FL.
16. ***Odean, R., & Pruden, S.M.** (2014, October). *Measuring spatial language comprehension in three-year-olds*. Invited talk to the Mills College Language Development Lab, Mills College, Oakland, CA.
15. **Pruden, S.M., *Abad, C., & *Odean, R.** (2014, March). *Impact of parent and prekindergarten educator language use on children's early numeracy and spatial skills*. Paper presented at FIU 2014 Linguistics Mini-Fest, Miami, FL. (co-authors contributed equally)
14. **Pruden, S.M., *Abad, C., *Costales, A., & *Odean, R.** (2013, February). *Impact of early educator language use on pre-kindergarten children's numeracy and spatial skills*. Paper presented at FIU 2013 Linguistics Mini-Fest, Miami, FL.
13. **Pruden, S.M.** (2012, May). *The development of spatial language and spatial thinking*. Invited talk to STRIDE Committee, College of Arts and Sciences, Florida International University, Miami, FL.
12. **Pruden, S.M.** (2011, May). *The development of spatial language and spatial thinking*. Invited talk to the Psychology Department, University of Miami, Miami, FL.
11. **Pruden, S.M.** (2010, December). *The development of spatial language and spatial thinking*. Invited talk to the Department of Education, Florida International University, Miami, FL.
10. **Pruden, S.M.** (2010, February). *The development of spatial language in children*. Invited talk to the Psychology Department, Florida International University, Miami, FL.
9. **Pruden, S.M.** (2010, February). *The development of spatial language in children*. Invited talk to the Psychology Department, DePaul University, Chicago, IL.
8. **Pruden, S.M.** (2010, January). *The development of spatial language in children*. Invited talk to the Psychology Department, Ryerson University, Toronto, Canada.
7. **Pruden, S.M.** (2010, January). *The development of spatial language in children*. Invited talk to the Psychology Department, Union College, Schenectady, NY.
6. **Pruden, S.M.** (2009, December). *The development of spatial language and spatial thinking*. Invited talk to the Psychology Department, Hartwick College, Oneonta, NY.
5. **Pruden, S.M.** (2009, December). *The development of spatial language in children*. Invited talk to the Cognition and Language Lab, Northwestern University, Chicago, IL.
4. **Pruden, S.M.** (2009, October). *The development of spatial language in children*. Invited talk to the Developmental Program, Department of Psychology, University of Chicago, Chicago, IL.
3. **Pruden, S.M.** (2008, March). *Listen up baby! Two views are better than one: Factors that aid infants' abstraction of spatial relations*. Invited paper presented at the 79th annual Eastern Psychological Association, Boston, MA.
2. **Pruden, S.M.** (2006, May). *Current events: How infants parse the world for language*. Invited talk to the Developmental Program, Department of Psychology, University of Chicago, Chicago, IL.

1. **Pruden, S.M.** (2003, October). *Foundations of verb learning: Infants categorize path and manner in motion events*. Invited talk to Developmental Area, Department of Psychology, Temple University, Philadelphia, PA.

Peer-Reviewed Presentations [Note: * indicates student or trainee or former trainee under my supervision]

205. Curtis, M., Bayat, M., Hernandez, M., Curzon, M., **Pruden, S.**, Graziano, P., & Dick, A.S. (2025, September). *Trajectory of the bilingual vocabulary gap across adolescence: Longitudinal findings from the ABCD study*. Poster presented at the 13th Annual Meeting of the Flux Society. Dublin, Ireland.

204. *Mattox, N., *Wu, Y., *Bowley, H., *Rengel, M., *Vieites, V., *Ralph, Y., Dick, A.S., Mattfeld, A., Hayes, T., & **Pruden, S.M.** (2025, September). *Hippocampal volume and reorientation strategy during early childhood*. Poster presented at the 13th Annual Meeting of the Flux Society. Dublin, Ireland.

203. *Wu, Y., *Mattox, N., & **Pruden, S.M.** (2025, May). *Gender differences in spatial toy play: Links to young children's mental rotation and transformation*. Poster presented at biennial meeting of the Society for Research in Child Development, Minneapolis, MN.

202. *Rodriguez, K.A., Beckner, A.G., & **Pruden, S.M.** (2025, April). *Pupillometry as an indicator of perceived difficulty in children's mental rotation tasks*. Poster presented at workshop Eye-Tracking Workshop for Developmental Scientists, London, England.

201. *Avila, B., & **Pruden, S.M.** (2025, April). *Understanding adults' strategy type and spatial anxiety using eye-tracking*. Poster presented at Undergraduate Research Conference at Florida International University, Miami, FL.

200. Fraile, S., *Mattox, N., Dick, A.S., **Pruden, S.M.**, & Mattfeld, A. (2025, April). *Associations between Trace Eye-Blink Conditioning and Hippocampal Subfield Structure in 4-to-6-Year-olds*. Poster presented at Undergraduate Research Conference at Florida International University, Miami, FL.

199. *Rodriguez, V., *Saladrigas, K., *Mattox, N., *Bowley, H., *Wu, Y., Hayes, T., Dick, A.S. Mattfeld, A., & **Pruden, S.M.** (2024, November). *The influence of spatial language knowledge on reorientation abilities in young children*. Poster presented at the annual meeting of the Psychonomics Society, New York, NY.

198. *Desme, C.J., & **Pruden, S.M.** (2024, November). *Confidence mediates sex differences in mental rotation and perspective-taking/spatial orientation ability*. Poster presented at the annual meeting of the Psychonomics Society, New York, NY.

197. *Mattox, N., *Bowley, H., *Wu, Y., *Rodriguez, V., *Saladrigas, K., *Caro, A., *Shoukry, C., *Ralph, Y., Dick, A.S, Mattfeld, A., Hayes, T., & **Pruden, S.M.** (2024, September). *Hippocampal volume and reorientation strategy during early childhood*. Poster presented at 12th Annual Meeting of the Flux Society. Baltimore, Maryland.

196. *Rodriguez, K., & **Pruden, S.M.** (2024, April) *Strategy in Sight: Eye-Tracking Children's Mental Rotation*. Flash Talk at FIU Psychology Department Research Days, Miami, FL.

195. *Mattox, N. *Bowley, H., *Wu, Y., *Vieites, V., *Ralph, Y., Hayes, T., Mattfeld, A., Dick, A.S., & **Pruden, S.M.** (2024, March). *The relation between spatial language comprehension and mental transformation during early childhood*. Poster at FIU Psychology Department Research Days, Miami, FL.

194. ★Rodriguez, K., ★Ralph, Y., ★de La Rosa, I., ★Pinto, O., ★Rey, C., Pruden, S. (2024, April) *Strategy in Sight: Eye-Tracking Children's Mental Rotation*. Poster presentation at Graduate Student Appreciation Week Scholarly Forum; Miami, FL.
193. ★Shoukry, C., ★Mattox, N., ★Wu, Y., ★Bowley, H., Hayes, T., Mattfeld, A., Dick, A.S., & Pruden, S.M. (2024, April). *The role of working memory and executive function in spatial cognition*. Poster presentation at Undergraduate Research at FIU (URFIU) Conference, Miami, FL.
192. ★Caro, A. ★Desme, C.J., & Pruden, S.M. (2024, April). *Association between spatial activities and spatial anxieties*. Poster presented at the annual FIU Life Sciences South Florida Conference, Miami, FL.
191. ★Mattox, N. ★Bowley, H., ★Wu, Y., ★Vieites, V., ★Ralph, Y., Hayes, T., Mattfeld, A., Dick, A.S., & Pruden, S.M. (2024, March). *The relation between spatial language comprehension and mental transformation during early childhood*. Poster presented at the Cognitive Developmental Society biennial conference, Pasadena, CA.
190. ★Wu, Y., ★Arnold, H., ★Reyes, M., ★Lioi, P., ★Alvarez, E., ★Rodriguez, V., ★Ralph, Y., & Pruden, S. (2024, March). *Spatial toy play is associated with spatial cognition development in 4- and 5-year-olds*. Poster presented at the Cognitive Developmental Society biennial conference, Pasadena, CA.
189. ★Wu, Y., ★Mattox, N., ★Bowley, H., ★Lioi, P., ★Ralph, Y., ★Vieites, V., ★Rengel-Isea, M., Renfro, A., Hayes, T., Dick, A.S., Mattfeld, A. & Pruden, S.M. (2024, March). *Wayfinding experience is related to spatial skills in 4- to 6-year-olds*. Poster presented at the Cognitive Developmental Society biennial conference, Pasadena, CA.
188. ★Saladrigas, K., ★Rodriguez, V., ★Mattox, N., ★Bowley, H., ★Vieites, V., ★Wu, Y., ★Ralph, Y., ★Lioi, P., Pruden, S. M. (2024, March). *The influence of spatial language proficiency on children's spatial awareness*. Poster presented at the annual meeting of the Southeastern Psychological Association/CEPO, Orlando, FL.
187. ★Rodriguez, K., ★De La Rosa, I., ★Rey Ochoa, C., ★Pinto Corro, O., ★Ralph, Y., & **Pruden, S.M.** (2024, March). *Strategy in sight: Eye-tracking children's mental rotation*. Poster presented at the annual meeting of the Southeastern Psychological Association, Orlando, FL.
186. ★Hall, L., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., ★Overton, D., & **Pruden, S.M.** (2023, November). *Parents' mental rotation abilities predict negations during spatially demanding task*. Poster presented at the annual meeting of the Psychonomics Society, San Francisco, CA.
185. ★Hall, L., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., ★Overton, D., & **Pruden, S.M.** (2023, September). *Parents' mental rotation abilities predict negations during spatially demanding task*. Poster to be presented at Centre for Brain and Cognitive Development (CBCD) at Birkbeck, University of London.
184. ★Mattox, N., ★Bowley, H., ★Vieites, V., ★Wu, Y., ★Ralph, Y., ★Lioi, P., Hayes, T., Mattfeld, A., Dick, A.S., & **Pruden, S.M.** (2023, September). *Exploring relations between child age, hippocampal structure and spatial reorientation performance*. Poster presented the annual meeting of the FLUX Society, Santa Rosa, CA.
183. ★Mattox, N., ★Bowley, H., ★Vieites, V., ★Wu, Y., ★Ralph, Y., ★Lioi, P., Hayes, T., Mattfeld, A., Dick, A.S., & **Pruden, S.M.** (2023, July). *What's age got to do with it? Age and hippocampal volume as predictors of children's spatial reorientation task performance*. Poster presented the annual meeting of the International Society for Developmental Psychobiology, Utrecht, The Netherlands.

182. Smith, D.D., Meca, A., Bartley, J.E., Riedel, M.C., Salo, T., Peraza, J.A., Bottenhorn, K.L., Laird, R.W., **Pruden, S.M.**, Sutherland, M.T., Brewe, E., Laird, A.R. (2023, July). *Task-based attentional and default mode connectivity associated with STEM anxiety profiles among university physics students*. Poster presented at 29th Annual Meeting of the Organization for Human Brain Mapping, Montreal, Canada.
181. ★Alvarez, E. ★Arnold, H., ★Lioi, P., ★Reyes, A., ★Rodriguez, A., ★Wu, Y., & Pruden, S.M. (2023, April). *Spatial language, selective attention, and spatial cognition in early childhood*. Poster presented at Undergraduate Research Conference at Florida International University, Miami, FL.
180. ★De La Rosa, I., ★Pinto Corro, O., ★Rey Ochoa, C., ★Rodriguez, K.A., & **Pruden, S.M.** (2023, April). *Does parental STEM interests affect children's mental rotation performance?* Poster presented at Undergraduate Research Conference at Florida International University, Miami, FL.
179. ★Rodriguez, K., ★Ralph, Y., ★Pinto Corro, O., ★Rey Ochoa, C., & **Pruden, S.M.** (2023, March). *Whatcha looking at? Eye-tracking children's mental rotation strategies*. Poster presented at the annual meeting of the Society for Research in Child Development (SRCD), Salt Lake City, Utah.
178. ★Wu, Y., ★Bowley, H., ★Lioi, P., ★Ralph, Y., ★Vieites, V., ★Rengel, M., Renfro, A., Hayes, T., Dick, A., Mattfeld, A., & **Pruden, S.M.** (2023, March). *The association between working memory, inhibitory control, and spatial ability in 4- to 6-year-olds*. Poster presented at the annual meeting of the Society for Research in Child Development (SRCD), Salt Lake City, Utah.
177. ★Bowley, H., ★Wu, Y., ★Lioi, P., ★Vieites, V., ★Ralph, Y., **Pruden, S.**, Dick, A., Mattfeld, A., Hayes, T., Renfro, A., & ★Rengel, M. (2023, March). *Exploring individual and sex differences in trace eyeblink conditioning (EBC) in 4- to 6-year-olds*. Poster presented at the annual meeting of the Society for Research in Child Development (SRCD), Salt Lake City, Utah.
176. ★De La Rosa, I., ★Pinto Corro, O., ★Rey Ochoa, C., ★Rodriguez, K.A., & **Pruden, S.M.** (2023, February). *Does parental STEM interests affect children's mental rotation performance?* Poster presented at Florida Undergraduate Research Conference, St. Thomas University, Miami Gardens, FL.
175. ★Desme, C. J., & **Pruden, S.M.** (2022, November). *Relations between mental rotation tests and perspective-taking/spatial orientation tasks performance with STEM interest and achievement*. Poster presented at the annual meeting of the Psychonomic Society, Boston, MA.
174. **Pruden, S.M.**, ★Ralph, Y., ★Vieites, V., Renfro, A., ★Bowley, H., ★Rengel, M., Hayes, T., Dick, A.S., & Mattfeld, A. (2022, September). *Relation between hippocampal neurite density and trace eyeblink conditioning in four- to six-year-old children*. Poster presented at the annual meeting of the FLUX Society, Paris, France.
173. ★Desme, C. J., & **Pruden, S.M.** (2022, August). *Individual differences in mental rotation and perspective-taking/spatial orientation: Relations between spatial confidence, spatial activities, and spatial anxiety*. Poster presented at the annual meeting of the American Psychological Association (APA), Minneapolis, MN.
172. ★Desme, C. J., & **Pruden, S.M.** (2022, June). *Spatial development influences STEM representation*. Poster presentation at the South Florida Student Research Symposium, Miami, FL.
171. ★Desme, C. J., ★Fernandez, T., & **Pruden, S.M.** (2022, May). *Spatial ability development: Individual differences recorded on mental rotation and perspective-taking/spatial orientation affects degree of STEM*

representation, interest, and achievement. Poster presented at the annual meeting of the Association for Psychological Science (APS), Chicago, IL.

170. ★Hall, L., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., ★Overton, D., & **Pruden, S.M.** (2022, April). *Diversity and quantity of parent-child spatial talk: The roles of prosocial talk and negative talk*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Madison, WI.

169. ★Overton, D., ★Hall, L., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., & **Pruden, S.M.** (2022, April). *Parent and child math language and relations to child spatial ability*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Madison, WI.

168. ★Desme, C. J., & **Pruden, S.M.** (2022, April). *Degree of reported confidence explains individual and gender differences in spatial ability measurements*. Poster presented at the 2022 FIU Graduate Student Appreciation Week (GSAW) Scholarly Forum, Miami, FL.

167. ★Rodriguez, K.A., ★Ralph, Y., & **Pruden, S.M.** (2022, April). *Understanding young children's mental rotation using eye-tracking*. Poster presented at the 2022 FIU Graduate Student Appreciation Week (GSAW) Scholarly Forum, Miami, FL. ★1st place poster presentation.

166. ★Desme, C. J., ★Fernandez, T., & **Pruden, S.M.** (2022, February). *The role of confidence in small-scale and large-scale spatial ability*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Madison, WI.

165. ★Hall, L., ★Rengel, M., ★Bowley, H., ★Alvarez-Vargas, D., ★Abad, C., ★Overton, D., & **Pruden, S.M.** (2022, February). *Variability in parent and child prosocial talk during collaborative block building predicts quantity of spatial language production*. Poster presented at the Society for the Study of Human Development conference, Virtual Conference.

164. ★Garcia, N.L., & **Pruden, S.M.** (2022, February). *Relations between mothers' characteristics and home spatial environment*. Poster presented at the Society for the Study of Human Development conference, Virtual Conference.

163. ★Desme, C. J., ★Fernandez, T., & **Pruden, S.M.** (2022, February). *Confidence explains individual differences in emerging adults' spatial abilities*. Poster presented at the Society for the Study of Human Development conference, Virtual Conference.

162. ★Garcia, N.L., ★Rengel, M., ★Bowley, H., & **Pruden, S.M.** (2021, November). *Factors that influence mother-child spatial play*. Poster to be presented at the Harvard's Women in Psychology conference, Virtual Conference.

161. ★Garcia, N.L., **Pruden, S.M.** & Dick, A.S. (2021, March). *Contributions of executive function to spatial thinking in preschool children*. Talk presented at the 2021 FIU Graduate Student Appreciation Week (GSAW) Scholarly Forum, Miami, FL. ★2nd place oral presentation.

160. ★Vieites, V., & Reeb-Sutherland, B., Mattfeld, A., Dick, A.S., Hayes, T., & **Pruden, S.M.**, (2021, April). *Does understanding basic relational language help children succeed on a spatial reorientation task?* Poster presented at the annual meeting of the Society for Research in Child Development (SRCD), Virtual Conference.

159. ★Hall, L., ★Rengel, M., ★Bowley, H., ★Hernandez, D., ★Giles, L., & **Pruden, S.M.** (2021, April). *Don't be so naïve: Employing a machine learning algorithm for spatial language analysis*. Flash talk presented to the annual meeting of the Society for Research in Child Development (SRCD), Virtual Conference.
158. ★Perera, K., ★Garcia, N.L., & **Pruden, S.M.** (2020, November). *Spatial ability and STEM achievement*. Poster presented at the annual meeting of the Psychonomics Society, Virtual Conference.
157. ★Perera, K., ★Garcia, N.L., & **Pruden, S.M.** (October 2020). *Spatial ability and STEM achievement*. Poster presented at the Conference for Undergraduate Research at FIU, Virtual Conference.
156. Dick, A.S., ★Vieites, V., Renfro, A., ★Bowley, H., ★Rengel, M., Hayes, T., Mattfeld, A., Reeb-Sutherland, B., & **Pruden, S.M.** (2020, September). *Relation between hippocampal neurite density and trace eyeblink conditioning in four- to six-year-old children*. Poster presented at the annual meeting of the FLUX Society, Virtual Conference.
155. ★Hall, L., ★Montgomery, A., ★Alvarez-Vargas, D., ★Abad, C., & **Pruden, S.M.** (2020, July). *Individual differences in children's spatial abilities: Role of parent-child spatial language and parent spatial ability*. Poster presented at the International Congress on Infant Studies, Virtual Conference.
154. Bottenhorn, K.L., Bartley, J.E., Riedel, M.C., Salo, T., ★Bravo, E.I., ★Odean, R., ★Nazareth, A., Laird, R.W., **Pruden, S.M.**, Sutherland, M.T., Brewe, E., & Laird, A.R. (2020, June). *Intelligence and academic performance: Is it all in your head?* Poster presented at the annual meeting of the Organization for Human Brain Mapping (OHBM), Virtual Conference.
153. Furr, J., **Pruden, S.M.**, del Busto, C., Hong, N., Feinberg, L., ★Bravo, E.I., Moreira, E., & Cruz, E. (2019, November). The use of technology to examine changes in verbalization and ability to identify emotions in youth with selective mutism. In *innovative strategies to overcome barriers to care for children with selective mutism*. Paper presented at the 53rd Annual ABCT Convention, Atlanta, GA.
152. ★Garcia, N.L., **Pruden, S.M.**, & Dick, A.S. (2019, October). *Contributions of executive function to individual differences in preschool children's spatial thinking*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Louisville, KY.
151. ★Desme, C. J., ★Alvarez-Vargas, D., **Pruden, S.M.**, & Hayes, T. (2019, October). *Sex differences in mental rotation: Interactions between confidence, spatial anxiety and spatial activities*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Louisville, KY.
149. ★Vieites, V., **Pruden, S.M.**, & Reeb-Sutherland, B. (2019, October). *The mediating effects of wayfinding anxiety and childhood wayfinding experiences on gender differences in wayfinding strategies and affect in adults*. Poster presented at the annual meeting of the International Society for Developmental Psychobiology, Chicago, IL.
148. Bartley, J.E., Riedel, M.C., Salo, T., Bottenhorn, K.L., ★Bravo, E.I., ★Odean, R., ★Nazareth, A., Laird, R.W., Sutherland, M.T., **Pruden, S.M.**, Brewe, E., & Laird, A.R. (2019, June). *Brain networks underlying sex and pedagogy differences in physics learning*. Poster presented at annual meeting of the Organization for Human Brain Mapping (OHBM), Rome, Italy.
147. Bottenhorn, K.L., Bartley, J.E., Riedel, M.C., Salo, T., ★Bravo, E.I., ★Odean, R., ★Nazareth, A., Laird, R.W., **Pruden, S.M.**, Sutherland, M.T., Brewe, E., & Laird, A.R. (2019, June). *Large-scale brain networks*

underlying domain-specific memory, intelligence, and academic performance. Annual meeting of the Organization for Human Brain Mapping (OHBM), Rome, Italy.

146. ★Desme, C. J., ★Alvarez-Vargas, D., & **Pruden, S.M.** (2019, May). *Confidence mediates the sex differences observed in mental rotation tests*. Poster presented at the annual convention of the Association for Psychological Science (APS), Washington D.C.

145. ★Desme, C. J., ★Alvarez-Vargas, D., & **Pruden, S.M.** (2019, April). *Confidence mediates the sex differences observed in mental rotation tests*. Poster presented at the Conference for Undergraduate Research at FIU, Miami, FL.

144. ★Odean, R., ★Abad, C., & **Pruden, S.M.** (2019, March). Individual differences in preschoolers' spatial cognition: Role of spatial-relational language in predicting spatial thinking. Paper presented in H.E. Miller's (Chair), *Process-based approaches to understanding spatial development: The role of attention, language and gesture* at the biennial meeting of the Society for Research in Child Development (SRCD), Baltimore, MD.

143. ★Vieites, V., **Pruden, S.M.**, Shusterman, A., & Reeb-Sutherland, B. (2019, March). Eyeblick conditioning as a biomarker for children's success on spatial reorientation tests. Paper presented in E.K. Farran's (Chair) *How do navigational skills develop in typical and atypical populations?* at the biennial meeting of the Society for Research in Child Development (SRCD), Baltimore, MD.

142. ★Garcia, N.L., ★Warman, R., ★Perrera, K., ★Soto-Harrison, E., & **Pruden, S.M.** (2019, March). *Contributions of executive function to spatial thinking in preschool children*. Poster presented at the biennial meeting of the Society for Research in Child Development (SRCD), Baltimore, MD.

141. ★Abad, C., ★Odean, R., & **Pruden, S.M.** (2019, March). *Sex differences in children's spatial play*. Poster presented at the biennial meeting of the Society for Research in Child Development (SRCD), Baltimore, MD.

140. Dick, A.S., ★Garcia, N.L., **Pruden, S.M.**, Thompson, W.K., Hawes, S.W., Sutherland, M., Riedel, M., Laird, A., & Gonzalez, R. (2019, March). *No bilingual advantage for executive function: Evidence from a large sample of children in the Adolescent Brain and Cognitive Development (ABCD) study*. Paper presented in A.S. Dick and J. Bruce Morton (Chairs), *The bilingual advantage meets big data: Results of three large-sample studies in children*, at the biennial meeting of the Society for Research in Child Development (SRCD), Baltimore, MD.

139. Furr, J.M., **Pruden, S.M.**, del Busto, C., Feinberg, L., Hong, N., ★Bravo, E., & Yquez, C. (2018, April). *Assessment of vocalizations using language environment in children with selective mutism*. Paper presented at the annual meeting of the Anxiety and Depression Association of America, Washington, D.C.

138. ★Alvarez, D., ★Abad, C., **Pruden, S.M.** (2018, March). *Does spatial anxiety explain sex differences in mental rotation performance?* Poster presented at the Conference for Undergraduate Research at FIU, Miami, FL.

137. ★Alvarez, D., ★Abad, C., **Pruden, S.M.** (2018, March). *Does spatial anxiety explain sex differences in mental rotation performance?* Poster presented at the Life Sciences of South Florida Symposium, Miami, FL.

136. ★Bravo, E.I., del Busto, C., Feinberg, L., Hong, N., Furr, J., & **Pruden, S.M.** (2017, November). *Can children with selective mutism efficiently identify emotions? An eyetracking study utilizing Nim Stims*. Poster presented at the annual meeting of the International Society for Developmental Psychobiology, Washington, D.C.

135. ★Vieites, V., Limia, J., Green, E., Hoang, N., & Reeb-Sutherland, B.C., & **Pruden, S.M.** (2017, November). *The role of experience in gender differences in spatial aptitude*. Poster presented at the annual meeting of the International Society for Developmental Psychobiology, Washington, D.C.
134. ★Alvarez, D., ★Abad, C., & **Pruden, S.M.** (2017, November). *Does spatial anxiety mediate gender differences in mental rotation performance?* Talk presented at Quantifying Biology in the Classroom (QBIC) Symposium at Miami, FL. **3rd place award for best oral presentation.**
133. ★Abad, C., & **Pruden, S.M.** (2017, October). *Parent mental rotation skills predict the mental rotation skills of their children*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Portland, OR.
132. ★Odean, R., ★Abad, C., & **Pruden, S.M.** (2017, October). *An interactive assessment of dimensional adjective comprehension*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Portland, OR.
131. ★Vieites, V., **Pruden, S.M.**, & Reeb-Sutherland, B.C. (2017, October). *Hippocampal-dependent eyeblink conditioning predicts children's strategies for spatial reorientation*. Poster presented at the biennial meeting of the Cognitive Development Society (CDS), Portland, OR.
130. ★Alvarez, D., ★Abad, C., & **Pruden, S.M.** (2017, October). *Does spatial anxiety mediate the gender differences in mental rotation performance?* Poster presented at the biennial meeting of the Society for the Study of Human Development (SSHD), Providence, RI.
129. Furr, J.M., **Pruden, S.M.**, del Busto, C., Feinberg, L., Hong, N., ★Bravo, E., & Yeguez, C. (2017, October). *Language processing efficiency in children with selective mutism*. Paper presented at the annual meeting of the Selective Mutism Association, Boston, MA.
128. Feinberg, L., Hong, N., ★Bravo, E., del Busto, C., **Pruden, S.M.**, & Furr, J. (2017, October). *Assessment of parent-child interactions and language environment among children with selective mutism*. Paper presented at the annual meeting of the Selective Mutism Association, Boston, MA.
127. Hong, N., Feinberg, L.K., ★Bravo, E.I., Yeguez, C., del Busto, C. **Pruden, S.M.**, & Furr, J. (2017, October). *Overcoming obstacles to cognitive assessment of children with selective mutism*. Paper presented at the annual meeting of the Selective Mutism Association, Boston, MA.
126. ★Vieites, V., **Pruden, S.M.**, & Reeb-Sutherland, B.C. (2017, May). *Hippocampal-dependent eyeblink conditioning predicts children's spatial reorientation strategies*. Poster presented at the annual meeting of the Association for Psychological Science (APS), Boston, MA.
125. ★Abad, C., ★Alvarez, D., ★Gonzalez, A., ★Alayeto, A., & **Pruden, S.M.** (2017, April). *Exploring the relationship between parent and child mental rotation skills*. Poster presented at the biennial meeting of the Society for Research in Child Development (SRCD), Austin, TX.
124. ★Vieites, V., **Pruden, S.M.**, & Reeb-Sutherland, B.C. (2017, April). *Relations between spatial reorientation and hippocampal-dependent learning and memory in young children*. Poster presented at the biennial meeting of the Society for Research in Child Development (SRCD), Austin, TX.

123. ★Abad, C., & **Pruden, S.M.** (2017, March). *Are parent and child mental rotation skills related?* Talk presented at the 2017 FIU Graduate Student Appreciation Week (GSAW) Scholarly Forum, Miami, FL. **3rd place oral presentation.**
122. ★Alvarez, D., ★Gonzalez, A., ★Abad, C., & **Pruden, S.M.** (2017, March). *Does parent spatial ability predict child spatial ability?* Poster presented at the Annual Biomedical and Comparative Immunology Symposium at FIU, Miami, FL. **2nd place presentation.**
121. ★Alvarez, D., ★Abad, C., & **Pruden, S.M.** (2017, March). *Does parent spatial ability predict child spatial ability?* Talk presented at the Florida International University's Conference for Undergraduate Research (FIU-CFUR), Miami, FL.
120. ★Aguero, A., ★Bollat, P., & **Pruden, S.M.** (2017, March). *Words in space: Words with implicit spatial associations influence anticipatory attention.* Poster presented at Florida International University's Conference for Undergraduate Research (FIU-CFUR), Miami, FL.
119. Green, E., Limia, J., ★Vieites, V., Reeb-Sutherland, B.C., & **Pruden, S.M.** (2017, March). *The role of experience in gender differences in spatial aptitude.* Poster presented at Florida International University's Conference for Undergraduate Research (FIU-CFUR), Miami, FL.
118. Hoang, N., Mora, P., ★Vieites, V., Reeb-Sutherland, B.C., & **Pruden, S.M.** (2017, March). *The role of wayfinding experience on spatial anxiety: Implications for spatial aptitude.* Poster presented at Florida International University's Conference for Undergraduate Research (FIU-CFUR). Miami, FL.
117. ★Aguero, A., ★Bollat, P., & **Pruden, S.M.** (2017, March). *Words in space: Words with implicit spatial associations influence anticipatory attention.* Poster presented at annual meeting of Southeastern Psychological Association/CEPO, Atlanta, GA.
116. ★Alvarez, D., ★Gonzalez, A., ★Abad, C., & **Pruden, S.M.** (2017, March). *Does parent spatial ability predict child spatial ability?* Poster presented at annual meeting of Southeastern Psychological Association/CEPO, Atlanta, GA.
115. ★Marquez, S., ★Bollat, P., & **Pruden, S.M.** (2017, March). *Math and science anxiety: Establishing a connection within physics undergraduate students.* Poster presented at annual meeting of Southeastern Psychological Association/CEPO, Atlanta, GA.
114. ★Alvarez, D., ★Abad, C., & **Pruden, S.M.** (2017, February). *Does parent spatial ability predict child spatial ability?* Talk presented at the Florida Undergraduate Research Conference, Boca Raton, FL.
113. ★Alvarez, D., ★Abad, C., & **Pruden, S.M.** (2016, November). *The relation between toy preference and mental rotation performance in preschool-aged children.* Poster presented at the Annual Biomedical Research Conference for Minority Students, Tampa, FL. **★outstanding scientific poster presentation.**
112. ★Vieites, V., **Pruden, S.M.**, & Reeb-Sutherland, B.C. (2016, November). *Relation between spatial reorientation and hippocampal-dependent learning and memory in young children.* Poster presented the annual meeting of International Society for Developmental Psychobiology, San Diego, CA.

111. ★Alvarez, D., ★Abad, C., & **Pruden, S.M.** (2016, October). *Does parent spatial ability predict child spatial ability?* Talk presented at the Annual MARC U*STAR & NIGMS RISE Student Mini-Symposium, Miami, FL.
110. ★Odean, R., ★Nazareth, A., Bartley, J., Brewe, E., Laird, A., & **Pruden, S.M.** (2016, August). *Does experience with physics concepts improve mental rotation performance?* Poster presented at the Annual Meeting of the Cognitive Science Society, Philadelphia, PA.
109. ★Nazareth, A., & **Pruden, S.M.** (2016, August). *Sex differences in mental rotation performance: The self-fulfilling prophecy of gender stereotypes.* Poster presented at the Annual Meeting of the Cognitive Science Society, Philadelphia, PA.
108. ★Abad, C., ★Odean, R., & **Pruden, S.M.** (2016, August). *Sex differences in spatial skill gains throughout pre-kindergarten.* Poster presented at the Spatial Cognition Conference, Philadelphia, PA.
107. ★Nazareth, A., ★Odean, R., Bartley, J., Brewe, E., Laird, A., & **Pruden, S.M.** (2016, August). *Role of physics pedagogy in mental rotation performance: Lecture versus modeling classes.* Poster presented at the Spatial Cognition Conference, Philadelphia, PA.
106. Bartley, J., Riedel, M.C., Falcone, K., MacNamara, K., **Pruden, S.M.**, Brewe, E., Sutherland, M.T., & Laird, A.R. (2016, July). *Physics classroom learning promotes posterior medial cortex activity during problem-solving.* Summer 2016 National Meeting of the American Association of Physics Teachers (AAPT), Sacramento, CA.
105. Bartley, J., Riedel, M.C., Falcone, K., MacNamara, K., **Pruden, S.M.**, Brewe, E., Sutherland, M.T., & Laird, A.R. (2016, July). *Physics classroom learning promotes posterior medial cortex activity during problem-solving.* 19th annual meeting of the Physics Education Research Conference (PERC), Sacramento, CA.
104. Bartley, J., Riedel, M.C., Falcone, K., MacNamara, K., **Pruden, S.M.**, Brewe, E., Sutherland, M.T., & Laird, A.R. (2016, June). *Physics classroom learning promotes posterior medial cortex activity during problem-solving.* 22nd annual meeting of the Organization for Human Brain Mapping (OHBM), Geneva, Switzerland.
103. Bartley, J., Riedel, M.C., Falcone, K., MacNamara, K., **Pruden, S.M.**, Brewe, E., Sutherland, M.T., & Laird, A.R. (2016, June). *Physics classroom learning promotes posterior medial cortex activity during problem-solving: An fMRI investigation of physics learning.* 4th biennial meeting of the Special Interest Group (SIG) 22 “Neuroscience and Education” of the European Association for Research on Learning and Instruction (EARLI), Amsterdam, Netherlands.
102. Bahrick, L., Zuraw-Moya, R., **Pruden, S.**, & Todd, J. (2016, May). *Temporal synchrony as a foundation for language learning: Thirteen-month-olds learn novel label-object relations.* Poster presented at the biennial meeting of International Society on Infant Studies (ISIS), New Orleans, LA.
101. ★Abad, C., ★Odean, R., & **Pruden, S.M.** (2016, April). *Pre-kindergartners’ gain in spatial skills.* Talk presented at the Graduate Student Appreciation Week Scholarly Forum, Miami, FL.
100. ★Marquez, S., ★Odean, R., ★Nazareth, A., Bartley, J., Brewe, E., Laird, A., & **Pruden, S.M.** (2016, March). *Mental rotation in undergraduate physics students.* Poster presented at the FIU Undergraduate Research Conference, Miami, FL.

99. ★ Alvarez, D., ★ Abad, C., & **Pruden, S.M.** (2015, October). *The influence of toy preference on early mental rotation abilities*. Poster presented at the FIU McNair Scholars Research Conference, Miami, FL.
98. ★ Odean, R., ★ Bravo, E., & **Pruden, S.M.** (2015, October). *Three-year-olds' comprehension of dimensional adjectives*. Poster presented at the Society for the Study of Human Development, Austin, TX.
97. ★ Abad, C., ★ Odean, R., & **Pruden, S.M.** (2015, October). *Exploring sex differences in Hispanic pre-kindergarteners spatial skills*. Poster presented at the Society for the Study of Human Development 9th Biennial Meeting, Austin, TX.
96. ★ Odean, R., ★ Bravo, E., & **Pruden, S.M.** (2015, October). *Individual differences in preschooler's processing of dimensional terms*. Poster presented at the biennial meeting of the Cognitive Development Society, Columbus, OH.
95. ★ Abad, C., ★ Odean, R., & **Pruden, S.M.** (2015, October). *Sex differences in gains on spatial ability throughout pre-kindergarten*. Poster presented at the biennial meeting of the Cognitive Development Society, Columbus, OH.
94. ★ Nazareth, A., ★ Waheed, I., ★ Matos, N., ★ Ramos, N., & **Pruden, S.M.** (2015, October). *Early spatial activity experience influences cognitive strategy selection during mental rotation*. Poster presented at the Society for the Study of Human Development 9th Biennial Meeting, Austin, TX.
93. ★ Waheed, I., ★ Nazareth, A., ★ Matos, N., ★ Ramos, N., ★ Bravo, E., & **Pruden, S.M.** (2015, October). *Examining the role of spatial content exposure in mental rotation performance*. Poster presented at the Society for the Study of Human Development 9th Biennial Meeting, Austin, TX.
92. ★ Nazareth, A., ★ Matos, N., ★ Ramos, N., ★ Waheed, I., & **Pruden, S.M.** (2015, May). *Early spatial activity experience partially mediates adult mental rotation performance*. Poster presented at the 2015 South Florida Child Psychology Research Conference, Miami, FL.
91. ★ Odean, R., & **Pruden, S.M.** (2015, May). *Measuring spatial language comprehension*. Talk presented at the South Florida Child Psychology Research Conference, Miami, FL.
90. ★ Abad, C., ★ Odean, R., ★ Barriga, T., & **Pruden, S.M.** (2015, May). *The development of spatial skills in pre-kindergarten classrooms*. Talk presented at the South Florida Child Psychology Research Conference, Miami, FL.
89. ★ Abad, C., ★ Lopez, M., ★ Perez, V., ★ Odean, R., & **Pruden, S.M.** (2015, April). *The role of language in early spatial development*. Talk presented at 2015 FIU Graduate Student Appreciation Week (GSAW) Scholarly Forum, Miami, FL. ★3rd place oral presentation.
88. ★ Bravo, E., ★ Odean, R., & **Pruden, S.M.** (2015, March). *Using eye tracking to assess comprehension of spatial terms in preschoolers*. Talk presented at the Life Science South Florida Undergraduate Research Conference, Indian River State College Ft. Pierce, FL.
87. ★ Ramos, N., ★ Nazareth, A., & **Pruden, S.M.** (2015, April). *Susceptibility to gender stereotypes: An indicator of adult mental rotation performance*. Poster presented at National Conference on Undergraduate Research, Spokane, WA.

86. *Bravo, E., *Odean, R., & **Pruden, S.M.** (2015, March). *Preschooler's comprehension of spatial terms*. Talk presented at the FIU Florida Undergraduate Research Conference, Miami, FL.
85. *Barriga, T., *Humes, W., *Nazareth, A., & **Pruden, S.M.** (2015, March). *A meta-analysis of neuroimaging studies of mental rotation*. Poster presented at the FIU Florida Undergraduate Research Conference, Miami, FL.
84. *Waheed, I., *Nazareth, A., & **Pruden, S.M.** (2015, March). *Examining the role of spatial content exposure in mental rotation performance?* Poster presented at the FIU Florida Undergraduate Research Conference, Miami, FL.
83. *Matos, N., *Gallo, M., *Nazareth, A., *Ramos, N., & **Pruden, S.M.** (2015, March). *Memory for spatial locations: An eye-tracking study*. Poster presented at the FIU Florida Undergraduate Research Conference (FURC), Miami, FL.
82. *Matos, N., *Waheed, I., *Ramos, N., *Nazareth, A., *Gallo, M., & **Pruden, S.M.** (2015, February). *An eye tracking study examining spatial working memory in infants*. Poster presented at the Florida Undergraduate Research Conference (FURC), Daytona Beach, FL.
81. *Abad, C., *Odean, R., *Salazar, D., *Lopez, M., & **Pruden, S.M.** (2014, November). *Examining the gender gap: The role of spatial language on pre-kindergartners' numeracy and spatial skills*. Poster presented at the Science of Learning pre-conference at the 2014 International Mind, Brain, and Education Society, Fort Worth, TX.
80. *Odean, R., *Abad, C., *Perez, L., *Perez, L., & **Pruden, S.M.** (2014, November). *Up, up and away: How teachers' spatial language influences children's early numeracy and spatial skills*. Poster presented at the 2014 International Mind, Brain, and Education Society, Fort Worth, TX. [*NSF Student Award in STEM Education Research](#)
79. *Odean, R., *Bravo, E., *Ramirez, E., & **Pruden, S.M.** (2014, November). *Early comprehension of spatial language*. Poster presented at the Science of Learning pre-conference at the 2014 International Mind, Brain, and Education Society, Fort Worth, TX.
78. *Nazareth, A., *Ramos, M., *Labi, A.S., *Humes, W.J., & **Pruden, S.M.** (2014, November). *Individual differences in cognitive strategy selection during mental rotation: Role of early spatial experience*. Poster presented at the 2014 International Mind, Brain, and Education Society, Fort Worth, TX. [*NSF Student Award in STEM Education Research](#)
77. *Waheed, I., *Nazareth, A., & **Pruden, S.M.** (2014, November). *Are women more spatially anxious than men?* Talk presented at 15th Annual Women, Sexuality and Gender Studies Association Conference, Miami, FL.
76. *Matos, N., *Nazareth, A., & **Pruden, S.M.** (2014, November). *Sex differences in self-reported levels of confidence on a mental rotation task*. Poster presented at 15th Annual Women, Sexuality and Gender Studies Association Conference, Miami, FL.
75. *Matos, N., *Nazareth, A., & **Pruden, S.M.** (2014, October). *Spatial anxiety in mental rotation performance*. Poster presented at McNair Scholars Research Conference, Miami, FL.

74. ★Ramos, N., ★Nazareth, A., & **Pruden, S.M.** (2014, October). *Examining stereotype threat in mental rotation performance*. Talk and poster presented at McNair Scholars Research Conference, Miami, FL.
73. ★Waheed, I., ★Nazareth, A., & **Pruden, S.M.** (2014, October). *The role of participant confidence in mental rotation performance*. Poster presented at the McNair Scholars Research Conference, Miami, FL.
72. ★Odean, R., & **Pruden, S.M.** (2014, October). *Measuring spatial language comprehension in three-year-olds*. Talk presented at FIU's Center for Children and Families Datablitz, Miami, FL.
71. **Pruden, S.M.**, ★Abad, C.A., ★Odean, R., & ★Costales, A. (2014, May). Prekindergarten educator impact on children's early numeracy and spatial skills. Talk presented in H.E. Miller (Chair), *Putting the pieces together: The role of spatial language in spatial cognition*, at the 44th annual meeting of the Jean Piaget Society, San Francisco, CA.
70. ★Nazareth, A., **Pruden, S.M.**, & Riedel, M. (2014, May). *Raw data analyses overcome fixation filter constraints in eye tracking*. Poster presented at the 26th annual convention of the Association for Psychological Science (APS), San Francisco, CA.
69. ★Abad, C., ★Odean, R., ★Lopez, M., ★Salazar, D., & **Pruden, S.M.** (2014, May). *The role of educators' language on pre-kindergarteners' numeracy and spatial skills*. Poster presented at the 26th annual convention of the Association for Psychological Science (APS), San Francisco, CA.
68. ★Odean, R., ★Bravo, E., ★Ramirez, E., & **Pruden, S.M.** (2014, May). *Spatial language processing*. Talk presented at the University of Miami/Florida International University Southeastern Cross-University Collaborative Mentorship Conference, Miami, FL.
67. ★Ramos, M., ★Nazareth, A., & **Pruden, S. M.** (2014, April). *Effect of non-spatial cues on adult mental rotation performance*. Poster presented at the 2014 Life Sciences South Florida (LSSF) STEM Undergraduate Research Symposium, Miami, FL.
66. ★Salazar, D., ★Lopez, M., ★Abad, C., ★Odean, R., & **Pruden, S.M.** (2014, April). *Examining the relation between pre-kindergartner's spatial and early numeracy skills*. Poster presented at the 2014 Life Sciences South Florida (LSSF) STEM Undergraduate Research Symposium, Miami, FL.
65. ★Ramos, M., ★Nazareth, A., & **Pruden, S. M.** (2014, March). *Sex differences in adult mental rotation ability: Examining the role of perceived gender role*. Poster presented at the Honor's College Advanced Research and Creativity in Honors (ARCH) conference, Miami, FL. ★Dean's Junior Research Award.
64. ★Barriga, T., ★Pulido, E., ★Mateo, V., ★Odean, R., ★Abad, C., & **Pruden, S.M.** (2014, March). *Measuring kindergarten readiness: Are state assessments reflective of numeracy and spatial ability?* Poster presented at the biennial meeting of the Society for Research in Human Development (SRHD), Austin, TX.
63. ★Mateo, V., ★Pulido, E., ★Barriga, T., ★Odean, R., ★Abad, C., & **Pruden, S.M.** (2014, March). *Examining variability in pre-kindergarten teacher language use*. Poster to be presented at the biennial meeting of the Society for Research in Human Development (SRHD), Austin, TX.
62. ★Labi, A.S., ★Nazareth, A., ★Ramos, M., ★Humes, W.J., & **Pruden, S.M.** (2014, March). *Adult mental rotation performance: Examining individual gaze-patterns to identify cognitive strategy use*. Poster presented at the annual meeting of the Eastern Psychological Association (EPA), Boston, MA.

61. *Humes, W.J., *Nazareth, A., *Labi, A.S., *Ramos, M., & **Pruden, S.M.** (2014, March). *Examining spatial anxiety in mental rotation ability: An eye-tracking study*. Poster presented at the annual meeting of the Eastern Psychological Association (EPA), Boston, MA.
60. *Ramos, M., *Nazareth, A., & **Pruden, S.M.** (2014, February). *Perceived gender role: A predictor of adult mental rotation abilities*. Poster presented at the Florida Undergraduate Research Conference (FURC), Miami, FL.
59. *Srikanth, S., *Gonzalez, S., *Costales, A., *Herradon, N., & **Pruden, S.M.** (2013, November). *Availability and use of early numeracy content in pre-kindergarten classrooms*. Poster presented at annual conference of The Psychonomic Society, Toronto, Ontario, Canada.
58. *Mateo, V.D., *Abad, C., *Costales, A., *Odean, R., & **Pruden, S. M.** (2013, November). *Exploring the relation between pre-k children's spatial language and spatial skills*. Poster presented at 2013 conference of the Society for the Study of Human Development (SSHD), Fort Lauderdale, FL.
57. *Gallo, M., *Bradley, C. A., & **Pruden, S. M.** (2013, November). *Infants' memory for locations: An eye-tracking study*. Poster presented at 2013 conference of the Society for the Study of Human Development (SSHD), Fort Lauderdale, FL.
56. *Gonzalez, S., *Bradley, C., *Barriga, T., Krogh-Jespersen, S., & **Pruden, S.M.** (2013, November). *What are you looking at? Effects of English-Spanish bilingualism on attention to and labeling of motion events*. Poster presented at 2013 conference of the Society for the Study of Human Development (SSHD), Fort Lauderdale, FL.
55. *Nazareth, A., *Bradley, C., *Name, A., & **Pruden, S. M.** (2013, November). *Examining sex differences in mental rotation strategy: An eye-tracking study*. Poster presented at 2013 conference of the Society for the Study of Human Development (SSHD), Fort Lauderdale, FL.
54. *Srikanth, S., *Gonzalez, S., *Costales, A., *Herradon, N., & **Pruden, S.M.** (2013, October). *The PreKindergarten Numeracy and Spatial Environment Survey: Evaluating the early education setting for numeracy and spatial materials*. Poster presented at the biennial conference of the Cognitive Development Society (CDS), Memphis, TN.
53. *Odean, R., *Abad, C., *Costales, A., *Herradon, N., *Ferret, S., & **Pruden, S.M.** (2013, October). *Pre-kindergarteners' numeracy and spatial development: The influence of educator language*. Poster presented at the biennial conference of the Cognitive Development Society (CDS), Memphis, TN.
52. Linares, D., Bagner, D.M., **Pruden, S.M.**, & Nichols-Lopez, K. (2013, September). *PCIT and language acquisition: Do changes in parenting skills mediate changes in child language performance?* Paper presented at the biennial PCIT convention, Boston, MA.
51. *Abad, C., *Odean, R., *Costales, A., *Ferret, S., & **Pruden, S.M** (2013, June). *Influence of teachers' numeracy language on pre-kindergartners' spatial reasoning*. Poster presented at 2013 Workshop on Infant Language Development (WILD), Donostia - San Sebastian, Spain.
50. *Abad, C., *Odean, R., *Costales, A., *Barriga, T., & **Pruden, S.M** (2013, June). *Same classroom, different experience? Sex differences in preschoolers' numeracy and spatial language*. Poster presented at 2013 Workshop on Infant Language Development (WILD), Donostia - San Sebastian, Spain.

49. *Odean, R., *Abad, C., *Bradley, C.A., & **Pruden, S.M** (2013, June). *The words of our parents: How parental language use influences early language processing efficiency*. Poster presented at 2013 Workshop on Infant Language Development (WILD), Donostia - San Sebastian, Spain.
48. *Costales, A., *Abad, C., *Odean, R., & **Pruden, S.M.** (2013, April). *Examining the impact of early educator language on pre-k children's spatial thinking using the LENA software*. Poster presented at 2013 LENA International Conference, Denver, CO.
47. *Odean, R., *Abad, C., *Costales, A., & **Pruden, S.M.** (2013, April). *Individual differences in children's comprehension of spatial terms: Using LENA to examine influence of parent spatial language*. Poster presented at 2013 LENA International Conference, Denver, CO.
46. *Abad, C., *Odean, R., *Costales, A., & **Pruden, S.M.** (2013, April). *Pre-kindergarten educators' spatial language use in the classroom: Using LENA to examine sources of sex differences*. Poster presented at 2013 LENA International Conference, Denver, CO.
45. *Gonzalez, S., *Bradley, C.A., *Barriga, T.M., Krogh-Jespersen, S., & **Pruden, S.M.** (2013, April). *Mapping labels to motion events: Effects of bilingualism*. Poster presented at biennial meeting for the Society for Research in Child Development (SRCD), Seattle, WA.
44. *Nazareth, A., *Herrera, A., & **Pruden, S.M.** (2013, April). *Role of spatial activity experience in mental rotation ability*. Poster presented at biennial meeting for the Society for Research in Child Development (SRCD), Seattle, WA.
43. *Odean, R., *Bradley, C.A., Krogh-Jespersen, S., & **Pruden, S.M.** (2013, April). *Children's comprehension of spatial terms*. Poster presented at biennial meeting for the Society for Research in Child Development (SRCD), Seattle, WA.
42. *Bradley, C.A., *Ferret, S., & **Pruden, S.M.** (2013, April). *Talking about the spatial world: Individual differences in parent talk during spatial activities*. Poster presented at biennial meeting for the Society for Research in Child Development (SRCD), Seattle, WA.
41. *Nazareth, A., & **Pruden, S.M.** (2013, March). *Sex differences in mental rotation: Are women playing the right games?* Paper presented at FIU Women, Sexuality, and Gender Student Association (WGSa) Annual Conference, Miami, FL.
40. *Bradley, C.A., Dick, A.S., & **Pruden, S.M.** (2012, June). *Defining area of interest (AOI): Impact on eye-tracking results*. Paper presented at the 5th International EyeTracKids Conference, Minneapolis, MN.
39. *Bradley, C.A., *Delgado, N., *Name, A., & **Pruden, S.M.** (2012, June). *Factors affecting infants' representation and memory of spatial locations*. Poster presented at biennial meeting of the International Society on Infant Studies (ISIS), Minneapolis, MN.
38. *Bradley, C., *Name, A., *Delgado, N., **Pruden, S.M.**, & Dick, A.S. (2012, June). *Establishing a sampling rate exclusion criterion for eye-tracking research*. Paper presented at the 5th International EyeTracKids Conference, Minneapolis, MN.

37. **Pruden, S.M.**, & Levine, S.C. (2012, June). *Parent input mediates the sex difference found in children's talk about the spatial world*. Paper presented at biennial meeting of the International Society on Infant Studies (ISIS), Minneapolis, MN.
36. Linares, D., Bagner, D., & **Pruden, S.M.** (2012, April). *Language acquisition following parent-child interaction therapy with children at risk for developmental delay*. Poster presented at the Midwest Regional Conference in Pediatric Psychology, Milwaukee, WI.
35. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2011, July). Children's spatial thinking: Does talk about space matter? Paper presented in H. De Mulder (Chair), *Children's understanding of space: Tracking development in (spatial) language and (spatial) cognition*. International Association for the Study of Child Language (IASCL), Montreal, Canada.
34. **Pruden, S.M.** (2011, June). Talk about the spatial world affects children's spatial thinking. Paper presented in K.R. Fisher (Chair), *Playing with space: Enhancing spatial thinking in early childhood for later academic success*. International Mind, Brain, and Education Society (IMBES) Conference, San Diego, California.
33. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2011, April). Children's spatial thinking: Does talk about space matter? Paper presented in H. De Mulder (Chair), *Children's understanding of space: Tracking development in spatial language and spatial cognition*. Society for Research in Child Development (SRCD), Montreal, Canada.
32. **Pruden, S.M.**, & Levine, S.C. (2011, April). *Factors affecting spatial language development: Are there sex differences?* Poster presented at the biennial meeting for the Society for Research in Child Development (SRCD), Montreal, Canada.
31. **Pruden, S.M.** (2011, February). The development of spatial language in children. Paper presented at *Florida International University/Florida Atlantic University Joint Conference on Cognition and Cognitive Development*, North Miami, FL.
30. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2010, March). Individual differences in children's spatial language use predicts later spatial cognition. Paper presented in S. Roseberry & T Göksun (Chairs), *When representational systems collide: Aligning space and language*. International Society on Infant Studies (ISIS), Baltimore, MD.
29. Cartmill, E., **Pruden, S.M.**, Levine, S.C., & Goldin-Meadow, S. (2009, November). *The role of parent gesture in children's spatial language development*. Paper presented at the 34th annual Boston University Conference on Language Development (BUCLD), Boston, MA.
27. Levine, S.C., & **Pruden, S.M.** (2009, September). *The relation between spatial language and spatial thinking*. Paper presented in Spatial Language and Spatial Cognition symposium at the 4th International Conference on Spatial Cognition, Rome, Italy.
26. Cartmill, E., **Pruden, S.M.**, Levine, S.C., & Goldin-Meadow, S. (2009, April). *Mother gesture early in development can influence children's later spatial understanding*. Poster presented at the annual NSF Spatial Intelligence and Learning Center site visit, Philadelphia, PA.
25. Levine, S.C., Huttenlocher, J., **Pruden, S.M.**, Gunderson, E.A., & Rowe, M.L. (2009, April). *Preschoolers' spatial knowledge: Relation to early parent-child interactions*. Paper presented in R.M. Golinkoff & K. Hirsh-Pasek (Chairs), *A mandate for playful learning in preschool: Presenting the evidence*. The biennial meeting for the Society for Research in Child Development (SRCD), Denver, CO.

24. **Pruden, S.M.**, Hirsh-Pasek, K., & Golinkoff, R.M. (2009, April). *Forming abstract spatial categories: Generalizing paths and manners to a new agent*. Poster presented at the biennial meeting for the Society for Research in Child Development (SRCD), Denver, CO.
23. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2009, April). *Space and language: The growth of spatial language in 14- to 46-month-olds*. Poster presented at the biennial meeting for the Society for Research in Child Development (SRCD), Denver, CO.
22. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2009, April). *Space and language: The relation between spatial language and spatial thinking*. Poster presented at the biennial meeting for the Society for Research in Child Development (SRCD), Denver, CO.
21. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2009, February). *The relation between spatial language and spatial thought in young children*. Paper presented at the 2nd Annual Inter-Science of Learning Center Student and Post-Doc Conference, Seattle, Washington.
20. Roseberry, S., Hirsh-Pasek, K., Golinkoff, R.M., & **Pruden, S.M.** (2008, July). *The role of experience in relational categorization*. Paper presented in T. Goksun & S.M. Pruden (Chairs), *Foundations for processing events and learning relational terms*. 11th International Association for the Study of Child Language (IASCL), Edinburgh, Scotland.
19. Levine, S.C., Huttenlocher, J., Cannon, J., **Pruden, S.M.**, Ratliff, K., & Saunders, J. (2008, June). *Learning to think spatially: Role of spatial language and activities*. Paper presented at the Spatial Intelligence and Learning Center Conference (The ins and outs of spatial learning: From theory to practice), Chicago, IL.
18. Golinkoff, R. M., Hirsh-Pasek, K., Goksun, T., Roseberry, S., Pulverman, R., & **Pruden, S.M.** (2008, April). *Foundations of verb learning: How infants view motion events*. Paper presented at the Princeton University Mini-Conference on Language Acquisition (organizer: A. Goldberg).
17. **Pruden, S.M.**, Levine, S.C., & Huttenlocher, J. (2008, April). *Space and language: The growth of spatial language in 14- to 30-month-olds*. Poster presented at the annual NSF Spatial Intelligence and Learning Center site visit, Philadelphia, PA.
16. **Pruden, S.M.**, Shallcross, W.L., & Hirsh-Pasek, K. (2007, November). *Foundations of verb learning: Comparison helps infants abstract event components*. Paper presented at the 32nd annual Boston University Conference on Language Development (BUCLD), Boston, MA.
15. **Pruden, S.M.**, Jones, M., Seston, R., Hirsh-Pasek, K., & Golinkoff, R.M. (2007, April). *Two views are better than one: Comparison helps infants abstract event components*. Poster presented at biennial meeting of Society for Research in Child Development (SRCD), Boston, MA.
14. **Pruden, S.M.**, & Hirsh-Pasek, K. (2005, November). *Foundations of verb learning: Labels promote action category formation*. Paper presented at the 30th annual Boston University Conference on Language Development (BUCLD), Boston, MA.
13. Shipley, T.F., **Pruden, S.M.**, Pulverman, R., Golinkoff, R.M., & Hirsh-Pasek, K. (2005, November). *When action meets word: Event parsing, representation and word learning*. Paper presented at the 46th annual meeting of the Psychonomic Society, Toronto, Canada.

12. Golinkoff, R.M., Hirsh-Pasek, K., Maguire, M., Pulverman, R., & **Pruden, S.M.** (2005, June). *A rose is a rose but a scene is not a scene: Languages encode events differently*. Paper presented at conference entitled *Words and the World: How Words Capture Human Experience*, Lehigh University, Bethlehem, PA.
11. **Pruden, S.M.**, & Hirsh-Pasek, K. (2005, April). On the path to verb learning. Paper presented in R.M. Golinkoff & K. Hirsh-Pasek (Chairs), *Action packed for language: Prelinguistic foundations for learning relational terms*. Society for Research in Child Development (SRCD), Atlanta, GA.
10. **Pruden, S.M.**, Hansell, N., Albertson, G., & Hirsh-Pasek, K. (2005, April). *Finding the invariant path and manner in motion events: Do labels help?* Poster presented at the Society for Research in Child Development (SRCD), Atlanta, GA.
9. Hirsh-Pasek, K., Golinkoff, R.M., **Pruden, S.M.**, & Salkind, S. (2004, August). Foundations for verb learning: Infants detect and categorize “paths” and “manners.” Paper presented in M. Imai (Chair), *Universal and language-specific factors influencing early verb learning*. International Congress of Psychology, Beijing, China.
8. **Pruden, S.M.**, Maguire, M.J., Meyer, M.A., Hansell, N., & Hirsh-Pasek, K. (2004, May). *Categorization of path and manner in infancy: Building a conceptual foundation for verb learning*. Poster presented at the International Society on Infant Studies, Chicago, IL.
7. Maguire, M.J., **Pruden, S.M.**, Hirsh-Pasek, K., Hansell, N., & Meyer, M.A. (2004, May). *More isn't better: Three-year-olds master intransitive verbs*. Poster presented at the International Society on Infant Studies (ISIS), Chicago, IL.
6. Maguire, M.J., **Pruden, S.M.**, Hirsh-Pasek, K., Meyer, M.A., & Hansell, N. (2004, May). *Two-year-olds use grammar to learn novel verbs*. Poster presented at the International Society on Infant Studies (ISIS), Chicago, IL.
5. Brandone, A., Salkind, S.J., Golinkoff, R.M., Hennon, E., Hirsh-Pasek, K., & **Pruden, S.M.** (2004, April). *Here's lookin' at you kid: The role of social cues in word learning*. Poster presented at the Cognitive Science Conference, University of Delaware, Newark, DE.
4. **Pruden, S.M.**, Hirsh-Pasek, K., Maguire, M.J., & Meyer, M.A. (2003, November). *Foundations of verb learning: Infants categorize path and manner in motion events*. Paper presented at the 28th annual Boston University Conference on Language Development (BUCLD), Boston, MA.
3. Maguire, M.J., Hirsh-Pasek, K., Golinkoff, R.M., & **Pruden, S.M.** (2003, April). The way you do that thing you do: Attention to path and manner in action words. Paper presented in L. Wagner (Chair), *How event cognition turns into event language*. Society for Research in Child Development, Tampa.
2. Maguire, M.J., Meyer, M.A., Salkind, S., **Pruden, S.M.**, & Hirsh-Pasek, K. (2003, April). *Keeping it simple: Mapping words onto actions*. Poster presented at the Society for Research in Child Development (SRCD), Tampa, FL.
1. **Pruden, S.M.**, Pulverman, R., Meyer, M.A., Maguire, M.J., Hirsh-Pasek, K., & Golinkoff, R.M. (2003, April). *Pathways to verb learning: Preverbal infants form action categories*. Poster presented at the Society for Research in Child Development (SRCD), Tampa, FL.

PROFESSIONAL HONORS, PRIZES AND FELLOWSHIPS

Honor/Prize/Fellowship	Organization	Dates
Fellow	FIU Presidential Leadership Program	2023 – 2025 (7 th Cohort)
CASE Faculty Service Award	College of Arts, Sciences and Education (CASE), Florida International University	2023
UGS Excellence Award for Outstanding Graduate Program Director	University Graduate School (UGS), Florida International University	2022
CASE Faculty Service Award	College of Arts, Sciences and Education (CASE), Florida International University	2021
Elected Full Member	Sigma Xi, The Scientific Research Honor Society	2020
CASE Faculty Research Award	College of Arts, Sciences and Education (CASE), Florida International University	2019
Elected Fellow	Psychonomic Society	2017
Science Communication Fellow	Patricia and Phillip Frost Miami Science Museum	2014 - 2016
Early Career Travel Award Total Award = \$500	Biennial Society for Research in Child Development meeting, Montreal, CAN	2011
Competitive Travel Award Total Award = \$700	2 nd Annual inter-Science of Learning Centers Conference, Seattle, WA	2009
Postdoctoral T32 Fellow Total Award = \$91,672	NRSA Institutional Research Training Grant to Univ. of Chicago National Institute of Child Health and Human Development #5T32HD043729-05	2007-2009
Competitive Travel Award Total Award = \$900	New Approaches to Infant Learning & Cognition Conference, Durham, NC	2005
Competitive Travel Award Total Award = \$700	32 nd Carnegie Mellon Symposium on Cognition, Pittsburgh, PA	2002
Summer Research Fellowship Total Award = \$5,500	California Pre-Doctoral Program (Site: Temple University Infant Laboratory)	2001
Sally Casanova California Pre-Doctoral Scholar Total Award = \$3,000	California Pre-Doctoral Program (Site: San Francisco State University)	2000 – 2001
Provost Honors (Muir College)	University of California at San Diego	1997 – 1999
Undergraduate Scholarship for the Study of Psychology	Edward Reifschneider Foundation	1994 – 1995

OFFICES HELD IN PROFESSIONAL SOCIETIES

Office	Society	Dates
Membership Chair	Society for the Study of Human Development	2015-2018
Membership Co-Chair	Society for the Study of Human Development	2012-2015
Steering Committee	Society for the Study of Human Development	2012-2018
Student Representative	Cognitive Development Society	2003-2005

TEACHING/MENTORING

Graduate Teaching [Note: ^{SR} course taught synchronous-remote; ^{F2F} course taught face-to-face]

College	Course Number and Title	Term	Enrollment
FIU	PSY 5939: Language and Literacy Development	^{F2F} Fall 2012	12
		^{F2F} Spring 2011	6
FIU	DEP 5065: Cognitive Development (Formerly Special Topics Course, PSY 5939)	^{F2F} Fall 2022	7
		^{SR} Fall 2020	12
		^{F2F} Fall 2018	6
		^{F2F} Fall 2015	19
		^{F2F} Fall 2013	9
		^{F2F} Fall 2011	
FIU	PSY 5099: Proseminar in Infancy, Childhood and Adolescence	^{F2F} Spring 2013	10

Doctoral Dissertation Committees [Note: * indicates I served as chair/major professor]

Student Name	Dissertation Title	Role	Duration
*Abenaa Yamoah	Exploring role of hippocampus in explaining individual differences in children's wayfinding experience	*Chair/Major Professor	Fall 2025 – present
*Bridgette Avila	Using eye-tracking to identify emerging adults' cognitive strategies for solving a mental rotation task: What role does spatial anxiety play?	*Chair/Major Professor	Fall 2025 – present
Sofia Fraile	Trace eyeblink conditioning and memory in 4- to 6-year-olds	Committee Member	Fall 2025 – present
Maria Morales	Dual language learner's early literacy skills and the home literacy environment: Exploring contextual factors	Committee Member	Fall 2023 – present
*Nicholas Mattox	Space and the developing brain: Structural and connectivity properties supporting children's spatial abilities	*Chair/Major Professor	Fall 2022 – present
*Karinna Rodriguez	Investigating spatial thinking with technology: A focus on eye-tracking data and mental rotation	*Chair/Major Professor	Fall 2021 – present
Atefeh Karimi	Motor-language development links in children with Down's Syndrome	Committee Member	Fall 2021 – present
*Carlos Desme	Sex differences in emerging adults' spatial ability: Influences of spatial experiences and affective factors	*Chair/Major Professor	Fall 2020 – Fall 2025
Kaitlyn Contino	Manipulation complexity and language development in infancy	Committee Member	Fall 2022 – Fall 2024
*LaTree Hall	Parent math talk: Social and cognitive influences	*Chair/Major Professor	Fall 2019 – Spring 2024

Ava Nazarimehrvarani	An examination of the interrelations among emotion regulation, orthorexia nervosa, and disordered eating	Committee Member	Spring 2023
*Nelcida Garcia	Understanding the home spatial environment	*Chair/Major Professor	Fall 2017 – Spring 2022
Elizabeth Edgar	Multisensory attention skills to language, cognitive, and social outcomes	Committee Member	Fall 2017 – Fall 2021
Myriah McNew	Intersensory processing and dyadic conversational turn-taking	Committee Member	Left Program Summer 2021
*Vanessa Vieites	Relating hippocampal volume to spatial reorientation strategies in early childhood: An MRI study	*Chair/Major Professor	Fall 2015 – Spring 2021
Tommy Chou	Parent-preschooler emotion narratives: Reading to promote literacy and socioemotional competency in urban communities of poverty	Committee Member	Summer 2020
*Carla Abad	The development of early spatial thinking	*Chair/Major Professor	Fall 2012 - Spring 2018
*Rosalie Odean	The development of spatial language	*Chair/Major Professor	Fall 2012 - Spring 2018
Cristina Del Busto	CBT for child anxiety: Long-term follow-up and predictors of long-term outcomes	Committee Member	Fall 2016
*Alina Nazareth	Factors affecting adult mental rotation performance	*Chair/Major Professor	Fall 2010 - Summer 2015
Briana O'Dowd	The effect of prenatal auditory enrichment on perceptual narrowing in bobwhite quail neonates	Committee Member	Fall 2014

Master's Project Committees [Note: * indicates I served as chair/major professor]

Student Name	Thesis Title	Role	Defended
*Abenaa Yamoah	Exploring role of hippocampus in explaining individual differences in children's wayfinding experience	*Chair/Major Professor	In progress
*Bridgette Avila	Using eye-tracking to identify emerging adults' cognitive strategies for solving a mental rotation task: What role does spatial anxiety play?	*Chair/Major Professor	In progress
Sofia Fraile	Trace eyeblink conditioning and memory in 4- to 6-year-olds	Committee Member	In progress
*Nicholas Mattox	The relation between spatial language comprehension and mental transformation during early childhood	*Chair/Major Professor	Summer 2024
Atefeh Karimi	Motor-language development links in children with Down's Syndrome	Committee Member	Fall 2023
*Karinna Rodriguez	Understanding young children's mental rotation using eye-tracking	*Chair/Major Professor	Spring 2024
*Carlos Desme	Individual differences in emerging adults' spatial abilities: What role do affective factors play?	*Chair/Major Professor	Fall 2022
Kaityn Contino	Handedness and language development	Committee Member	Summer 2022

Victoria Petrulla	The relationship between early multisensory/intersensory attention and language development/outcomes (Left with Masters)	Committee Member	Summer 2022
*LaTree Hall	Parent-child quality and quantity of spatial language use and its relation to children's spatial ability	*Chair/Major Professor	Fall 2021
*Nelcida Garcia	Contributions of executive functions to individual differences in preschooler spatial skills	*Chair/Major Professor	Summer 2019
Elizabeth Edgar	Multisensory attention skills and parent language input predict children's vocabulary across 12 to 24 months of age	Committee Member	Fall 2019
Kristafor Farrant	Volumetric development of the hippocampal sub-regions and hippocampal white matter connectivity: Relationship with episodic memory (Left with Masters)	Committee Member	Summer 2019
*Elsa Bravo	The relation between spatial anxiety, spatial activities and mental rotation performance (changed major professor)	*Chair/Major Professor	Summer 2018
Megan Taylor	Early grasp proficiency predicts individual patterns of bimanual skill development in infants (Left with Masters)	Committee Member	Fall 2018
Myriah McNew	Building foundations for language: Infant intersensory perception and dyadic contingency as predictors of language outcomes (Left with Masters)	Committee Member	Spring 2018
Sandy Gonzalez	Measuring comprehension in diverse Hispanic infants using the Mexican-Spanish CDI	Committee Member	Summer 2017
Vanessa Vieites	Hippocampal-dependent eyeblink conditioning predicts children's strategies for spatial reorientation	Committee Member	Summer 2017
Ana Paula Fabian	Investigating vocabulary abilities in bilingual Portuguese-speaking children (terminal master's program)	Committee Member	Summer 2016
*Carla Abad	Sex differences in Hispanic pre-kindergartner's spatial thinking	*Chair/Major Professor	Summer 2015
*Rosalie Odean	Comprehension and real-time processing of English dimensional adjectives in toddlers	*Chair/Major Professor	Summer 2015
*Shwetha Srikanth	Effects of family, child, and teacher demographics on prekindergarten children's access to and use of numeracy and spatial materials in the early education setting (Left with Masters)	*Chair/Major Professor	Summer 2014
Dainelys Linares	Parent training and language production in children with developmental delay: Mediating role of parenting skills	Committee Member	Summer 2013

Undergraduate Teaching [Note: ⁰ course taught fully online; ^{F2F} course taught face-to-face]

College	Course Number and Title	Term	Enrollment
FIU	DEP 2001: Psychology of Infancy and Childhood	⁰ Spring 2026	50
		⁰ Fall 2025	47
		⁰ Summer 2025	60
		⁰ Spring 2025	50
		⁰ Summer 2024	70

		o Fall 2023	29
		F2F Summer 2023	34
		o Fall 2019	67
		o Summer 2019	67
		o Spring 2019	68
		o Fall 2018	67
		o Summer 2018	68
		o Fall 2017	67
		o Summer 2017	65
		F2F Spring 2017	69
		o Fall 2016	96
		o Summer 2016	70
		o Spring 2016	55
		o Fall 2015	66
		o Summer 2015	56
		F2F Spring 2015	67
		o Fall 2014	132
		o Summer 2014	64
		F2F Spring 2014	72
		o Fall 2013	129
		F2F Summer 2013	64
		F2F Fall 2012	132
		F2F Summer 2012	48
		F2F Fall 2011	119
		F2F Summer 2011	67
		F2F Fall 2010	88
FIU	LIN 4710: Language Acquisition	o Fall 2024	57
		o Spring 2021	35
		o Fall 2020	68
		o Fall 2019	67
		o Spring 2018	68
		o Fall 2017	68
		F2F Spring 2017	26
		o Fall 2016	50
		o Spring 2016	45
		F2F Spring 2015	51
		o Fall 2014	60
		F2F Spring 2014	68
		F2F Spring 2013	70
		F2F Spring 2012	70
FIU	PSY 4930: Language and Literacy Development	F2F Fall 2012	5
FIU	PSY 4914: Honors Research Project	Spring 2020	1
		Summer 2017	1
		Spring 2017	1
		Fall 2016	1
		Summer 2016	2
		Spring 2016	2
		Fall 2015	1

		Summer 2014	1
		Spring 2014	3
		Summer 2012	1
		Spring 2012	1
FIU	PSY 4916: Independent Research	Spring 2019	3
		Fall 2018	2
		Summer 2018	3
		Spring 2018	1
		Fall 2017	4
		Summer 2017	1
		Spring 2017	3
		Summer 2016	2
		Fall 2016	2
		Summer 2016	1
		Fall 2015	1
		Spring 2015	2
		Fall 2014	2
		Summer 2014	1
		Fall 2013	2
		Summer 2013	3
		Spring 2013	1
		Spring 2012	2
		Fall 2011	1
		Spring 2011	3
FIU	PSY 4940: Internship in Psychology	Spring 2022	5
		Fall 2021	4
		Summer 2021	5
		Spring 2021	4
		Fall 2020	4
		Summer 2020	4
		Spring 2020	4
		Fall 2019	2
Temple	Scientific Thinking and Design in Psychology: Research Methods	F2F Summer 2005	24
		F2F Summer 2005	8
		F2F Spring 2005	30
		F2F Fall 2004	20
Temple	Introduction to Developmental Psychology	F2F Summer 2004	19
Temple	Topics in Psychology: Cognitive Development	F2F Fall 2002	18

Honor's Thesis Committees [Note: * indicates I served as chair/major professor]

Student Name	Thesis Title	Role	Defended
*Karla Perera	Contribution of spatial ability to STEM achievement	*Chair/Major Professor	Spring 2020
*Carlos Desme	Sex and individual differences in mental rotation: Role of confidence, spatial anxiety, and spatial activities (FIU doctoral program – Developmental Science)	*Chair/Major Professor	Spring 2020
Kassey Morales	Parent language input and second language exposure predicts child vocabulary	Committee Member	Fall 2019
Kaityn Contino	Frequency and mean duration of joint attention at 12 months independently predict expressive vocabulary growth at 18 and 24 months	Committee Member	Spring 2019
*Daniela Alvarez	Effects of spatial anxiety on undergraduate mental rotation (University of California, Irvine doctoral program – Educational Psychology)	*Chair/Major Professor	Spring 2018
*Ariel Aguero	Words in space: Do toddlers encode space in object labels? (Notre Dame doctoral program – Developmental Psychology)	*Chair/Major Professor	Summer 2017
Ana Brito	Relation between spatial language and quality of parent language	Committee Member	Fall 2016
Jenelly Sotomayor	Intersensory processing efficiency and language in infancy	Committee Member	Spring 2016
Marianne Jimenez	Mother-infant reciprocity scaffolds the development of joint attention and language acquisition in 12-month-old infants	Committee Member	Summer 2015
Ruth Zuraw-Moya	Novel word learning in infancy: Facilitation of novel word learning through motion synchrony	Committee Member	Fall 2014
*Marcela Ramos	Perceived gender roles: A predictor of adult mental rotation abilities (FIU doctoral program - Clinical)	*Chair/Major Professor	Spring 2014
*Asiel Herrera	Mental rotation: Replicating and explaining sex differences (Certified/Practicing Behavior Analyst)	*Chair/Major Professor	Summer 2012

Postdoctoral Mentees

2. Dr. Yinbo Wu (2022-2025)

1. Dr. Yvonne Ralph (2021-2022): Assistant Professor at University of Texas, Tyler

Doctoral Student Mentees

11. Abenaa Yamoah (2025-present; McKnight Fellow)

10. Bridgette Avila (2025-present; FIU UGS UtGP Fellow)

9. Nick Mattox, M.S. (2022-present)

8. Karinna Rodriguez, M.S. (2021-present; FIU UGS DYF Fellow)

7. Dr. Carlos Desme (2020-2025)

6. Dr. LaTree Hall (2019-2024; FIU UGS Inclusion Fellow and FIU UGS DYF Fellow): Assistant Professor in Psychology Department, Saint Xavier University

5. Dr. Nelcida Garcia-Sanchez (2017-2022; NIH-NRSA Fellow): Full-Time Instructional Faculty at CUNY Borough of Manhattan Community College

4. Dr. Vanessa Vieites (2015-2021; McKnight Fellow): Clinical Research Regulator at The Miami Neuroscience Institute

3. Dr. Rosalie Odean (2012-2018; FIU UGS DYF Fellow): Research Associate at WestEd
2. Dr. Carla Abad (2012-2018; NSF GRFP Fellow): Associate Teaching Professor in Psychology Department, FIU
1. Dr. Alina Nazareth (2011-2015; FIU UGS DYF Fellow; Worlds Ahead Graduate): User Experience (UX) Researcher at Okta; formerly worked at Meta as UX Researcher.

Lab Coordinator Mentees

1. Catherine Bradley (2011-2013): University of Florida Speech Pathology Program, Licensed Speech Pathologist for US Department of Veterans Affairs
2. Melanie Rengel (2020-2022): Doctoral program in Clinical Science at FIU in Fall 2022
3. Hannah Bowley (2020-2023): Executive Director at PLUMY: Protecting LGBTQ+ Underserved Miami-Dade Youth; Master's program in Biostatistics at FIU (2021-2023)

Undergraduate or High School Mentees

1. Priscilla Lioi, 2. Oriana Pinto, 3. Claudia Rey Ochoa, 4. Dymond Overton, 5. Carlos Casapons., 6. Tessie Fernandez, , 7. Karla Perera, 8. Sonays Amaya, 9. Temprest Toombs, 10. Katelyn Dominguez, 11. Madeline Tablada, 12. Anya Montgomery, 13. Gabriella Eynis, 14. Nicole Moron, 15. Daniela Alvarez Vargas (MARC U*STAR Fellow), 16. Ariel Aguero, 17. Ifrah Waheed (Honors College), 18. Rebecca Sanchez, 19. Heidy Sanchez, 20. Vanessa Perez, 21. Eduardo Ramirez, 22. Valerie Cruz, 23. Nicole Matos, 24. Kristen Alea, 25. Anaelle Labi, 26. Marcela Ramos (Honors College), 27. Wellington Humes, 28. Elsa Bravo (MBRS RISE Fellow), 29. Melissa Lowe, 30. Alejandro Acuna, 31. Daniela Salazar, 32. Michael Lopez, 33. Evan Soto-Harrison, 34. Abraham Hernandez, 35. Lorena Perez, 36. Loreinys Perez, 37. Diana Madruga, 38. Melanie Gallo, 39. Ella Pulido, 40. Natalie Herradon, 41. Daniela Caro, 42. Amy Diaz, 43. Melina Rodriguez, 44. Stephanie Licon, 45. Dina Zalloum, 46. Thandi Lyew, 47. Sandra Ferret, 48. Valery Mateo, 49. Sandy Gonzalez, 50. Jessica Laurent, 51. Ellen Durham, 52. Faite Ahaghotu, 53. Abby Araya, 54. Jessica Garcia-Iniguez, 55. Phillip Agres, 56. Isabella Ricarte, 57. Carolina Garcia, 58. Barbara Junco, 59. Tatiana Barriga, 60. Sasha Regalado, 61. Asiel Herrera, 62. Jessica Bensimon, 63. Shantell Grullon, 64. Nalatie Delgado, 65. Sergio Marquez (McNair Scholar), 66. Christopher Mendoza (high school student - 2012), 67. Algenys Name, 68. Alyssa Alayeto, 69. Elizabeth Arango, 70. Tiffany Beguiristain, 71. Paulina Bollat, 72. Bryan Diaz, 73. Stephanie Escobar, 74. Karla Figuera, 75. Aurora Geddes, 76. Albany Gonzalez, 77. Yousy Jimenez, 78. Alina Mitchell, 79. Linett Negron, 80. Nadine Ramirez, 81. Robert Regalado, 82. Katiarina Rodriguez, 83. Brittany Sealy, 84. Lauren Shephard, 85. Ana Violante, 86. Rachel Warmen, 87. Mellissa Wilmot, 88. Nicolas Zapata, 89. Andrea Zurita, 90. Nicole Morejon

Notable Undergraduate Student Placements

Abenaa Yamoah: Doctoral program in Developmental Science at Florida International University
 Bridgette Avila: Doctoral program in Developmental Science at Florida International University
 Isabela de la Rosa: Doctoral program in Developmental Psychology at Virginia Tech University
 Henry Arnold: Doctoral program in Human Factors at Embry-Riddle Aeronautical University
 Andrea Caro: Doctoral program in Psychology at Nova Southeastern University
 Claudia Ocho Rey: Master's program in Speech-Language Pathology at University of Central Florida
 Oriana Pinto Corro: Master's program in Counseling Psychology at University of Central Florida
 Tessie Fernandez: Doctoral program in Occupational Therapy at University of Florida
 Dymond Overton: Doctoral program in Community Psychology at Georgia State University
 Carlos Desme: Doctoral program in Developmental Science at Florida International University
 Temprest Toombs: Master's program in Nursing at Florida International University
 Gabriella Eynis: Master's program in Speech-Language Pathology at Florida International University
 Daniela Alvarez-Vargas: Doctoral program in Educational Psychology at University of California, Irvine
 Ariel Aguero: Doctoral program in Developmental Psychology at University of Notre Dame
 Elsa Bravo: Doctoral program in Developmental Science at Florida International University
 Marcela Ramos: Doctoral program in Clinical Science at Florida International University
 Daniela Salazar: Law school at University of Miami

Melanie Gallo: Master's program in Psychology at California State University, Fullerton
 Ella Pulido: Doctoral program in Audiology at Nova Southeastern University
 Stephanie Licon: Master's program in Speech-Language Pathology at Florida International University
 Sandra Ferret: Master's program in School Psychology at Florida International University
 Valery Mateo: Doctoral program in Developmental Psychology at Georgia State University
 Sandy Gonzalez: Doctoral program in Developmental Science at Florida International University
 Jessica Laurent: Master's program in Public Health at University of Miami
 Ellen Durham: Doctoral program in Clinical Psychology at Florida Institute of Technology
 Abby Araya: Doctoral program in Counseling Psychology at Nova Southeastern University
 Phillip Agres: Doctoral program in Applied Cognition and Neuroscience at University of Texas, Dallas
 Barbara Junco: Master's program in Psychology at Birkbeck College University of London
 Tatiana Barriga: Medical School at Loyola University Chicago
 Sasha Regalado: Master's program in Speech-Language Pathology at the University of Southern Mississippi
 Sergio Marquez: Doctoral student in Organizational Psychology at Michigan State University

Student Awards

Student Name	Award	Date
Karinna Rodriguez	FIU University Graduate School, Dissertation Year Fellowship (Total Award = \$18,899.10 + tuition)	Fall 2025-Spring 2026
Abenaa Yamoah	FEF McKnight Doctoral Fellowship (3-year fellowship)	Fall 2025 - present
Bridgette Avila	University Graduate School (UGS) Undergraduate to Graduate Program Fellowship (Graduate Portion)	Fall 2025 - present
Nick Mattox	Best Thesis Award, College of Arts, Sciences, and Education, Florida International University	Spring 2025
Abenaa Yamoah	Undergraduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2025
Bridgette Avila	Undergraduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2025
Bridgette Avila	University Graduate School (UGS) Undergraduate to Graduate Program Fellowship (Undergraduate Portion)	Spring 2025
Nick Mattox	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$2000)	Spring 2025
Karinna Rodriguez	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$2000)	Fall 2024
Karinna Rodriguez	Best Thesis Award, College of Arts, Sciences, and Education, Florida International University	Spring 2024
LaTreese Hall	Best Dissertation Award, College of Arts, Sciences, and Education, Florida International University	Spring 2024
Karinna Rodriguez	1 st place Flash Talk, Psychology Research Days, FIU (\$300)	Spring 2024
Nick Mattox	2 nd place poster presentation, Psychology Research Days, FIU (\$125)	Spring 2024
Karinna Rodriguez	Southeastern Psychological Association 1 st place Graduate Student Research award (\$300)	Spring 2024
LaTreese Hall	Next Generation of Family Math Researchers Dissertation Fellow by National Association for Family, School and Community Engagement and the Center for Family Math (\$10,000)	2023-2024
LaTreese Hall	FIU University Graduate School, Dissertation Year Fellowship (Total Award = \$18,899.10 + tuition)	Fall 2023-Spring 2024
LaTreese Hall	FIU Student Government Association Scholarship (\$1000)	Fall 2023-Spring 2024
LaTreese Hall	Jose Antonio Echeverria Scholarship (\$4000)	Summer 2023

Carlos Desme	Emerging Scholar Award at <i>6th Annual South Florida Student Research Symposium</i>	Summer 2022
Carlos Desme	4 th place oral presentation at <i>APS Three Minute Thesis (3MT) Contest</i>	Summer 2022
LaTreese Hall	<i>Cognitive Development Society</i> Diversity Travel Award (Total Award = \$750 + registration)	Spring 2022
Karinna Rodriguez	1 st place Flash Talk, FIU Psychology Graduate Research Awards (\$250)	Spring 2022
Karinna Rodriguez	1 st place presentation at 2022 FIU GSAW Scholarly Forum (400)	Spring 2022
LaTreese Hall	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$2000)	Spring 2022
Karinna Rodriguez	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$2000)	Spring 2022
LaTreese Hall	Graduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2022
Nelcida Garcia	Graduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2022
Tessie Fernandez	Undergraduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2022
Carlos Casapons	Undergraduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2022
Nelcida Garcia	NICHHD F31 NRSA (\$81,458)	Summer 2021- Spring 2022
Nelcida Garcia	2 nd place oral presentation at 2021 FIU GSAW Scholarly Forum (\$250)	Spring 2021
Nelcida Garcia	<i>Society for Research in Child Development</i> Student and Early Career Council Dissertation Award (\$2000)	Fall 2020-Fall 2021
Nelcida Garcia	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$2000)	Fall 2020
Carlos Desme	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$1000)	Fall 2020
Vanessa Vieites	FIU University Graduate School, Dissertation Year Fellowship (\$16,600 + tuition)	Summer 2020- Fall 2020
LaTreese Hall	FIU University Graduate School, Inclusion Fellowship (\$48,000 + tuition)	Fall 2019 – Summer 2021
Nelcida Garcia	<i>Cognitive Development Society</i> Diversity Travel Award (\$500 + registration)	Fall 2019
Carlos Desme	Northwestern University Sneak Peek Weekend (\$450)	Spring 2019
Evan Soto-Harrison	MARC U*STAR Undergraduate Fellowship, FIU	Declined Fellowship
Daniela Alvarez	Worlds Ahead Graduate, Florida International University	Spring 2018
Carla Abad	Best Dissertation Award, College of Arts, Sciences, and Education, Florida International University	Spring 2018
Carla Abad	Graduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2018
Daniela Alvarez	Undergraduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2018
Rosalie Odean	Graduate Academic Achievement Award, College of Arts, Sciences, and Education, Florida International University	Spring 2018

Rosalie Odean	<i>Cognitive Development Society</i> Diversity Travel Award (\$500 + registration)	Fall 2017
Carla Abad	<i>Cognitive Development Society</i> Diversity Travel Award (\$500 + registration)	Fall 2017
Rosalie Odean	FIU University Graduate School, Dissertation Year Fellowship (\$16,600 + tuition)	Fall 2017- Spring 2018
Carla Abad	FIU Psychology, Dissertation Year Fellowship (\$16,600 + tuition)	Fall 2017- Spring 2018
Daniela Alvarez	3 rd place Award, Best Oral Presentation, Quantifying Biology in the Classroom (QBIC), Florida International University	Fall 2017
Daniela Alvarez	Full Travel Award, Emory University-Laney Graduate School STEM Research and Career Symposium	Fall 2017
Carla Abad	3 rd place oral presentation at 2017 FIU GSAW Scholarly Forum (\$100)	Spring 2017
Elsa Bravo	<i>NIGMS</i> RISE Graduate Fellowship, FIU (Program not renewed)	Spring 2017
Elsa Bravo	Education Foundation Scholarship, Delta Phi Epsilon Education Foundation (\$2000)	Spring 2017
Daniela Alvarez	University of Minnesota Dept. of Psychology Diversity Weekend	Fall 2016
Sergio Marquez	University of Minnesota Dept. of Psychology Diversity Weekend	Fall 2016
Carla Abad	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$2000)	Fall 2016
Rosalie Odean	Psychology Seed Fund Awards, College of Arts, Sciences, and Education, FIU (\$2000)	Fall 2016
Carla Abad	Best Thesis Award, College of Arts, Sciences and Education, FIU	Spring 2016
Elsa Bravo	Undergraduate Academic Achievement Award, College of Arts, Sciences, and Education, FIU	Spring 2016
Daniela Alvarez	MARC U*STAR Undergraduate Fellowship, FIU	2016-2018
Sergio Marquez	McNair Post-Baccalaureate Achievement Program, FIU	2016-2017
Sergio Marquez	McNair Summer Research Institute at Michigan State U.	Summer 2016
Rosalie Odean	<i>Cognitive Development Society</i> Diversity Travel Award (\$500)	Fall 2015
Carla Abad	<i>Cognitive Development Society</i> Diversity Travel Award (\$500)	Fall 2015
Tatiana Barriga	Worlds Ahead Graduate, Florida International University	Fall 2015
Alina Nazareth	Worlds Ahead Graduate, Florida International University	Summer 2015
Elsa Bravo	<i>NSF</i> Spatial Intelligence Learning Center Research Experience for Undergraduates (REU) at Temple University (\$7,300)	Summer 2015
Alina Nazareth	FIU University Graduate School, Dissertation Year Fellowship (\$16,600 + tuition)	Spring- Summer 2015
Alina Nazareth	1 st place oral presentation at 2015 FIU GSAW Scholarly Forum (\$300)	Spring 2015
Carla Abad	2 nd place oral presentation at 2015 FIU GSAW Scholarly Forum (\$200)	Spring 2015
Ifrah Waheed	FIU Advanced Research and Creativity in Honors (ARCH) Scholarship (\$450)	Fall 2014
Alina Nazareth	Student Government Association Graduate Scholarship (\$1000)	Fall 2014
Rosalie Odean	<i>IMBES</i> poster wins student award in STEM Education Research (\$750)	Fall 2014
Alina Nazareth	<i>IMBES</i> poster wins student award in STEM Education Research (\$750)	Fall 2014

Elsa Bravo	Sedano Supermarket's Family First Scholarship, FIU (\$1000)	Fall 2014
Elsa Bravo	Honorable mention for oral presentation at 2014 FIU MARC U*STAR & MBRS-RISE Student Mini-Symposium	Fall 2014
Alina Nazareth	FIU Manuel & Mercedes Mosteiro Graduate Scholarship (\$750)	Summer 2014
Alina Nazareth	First place oral presentation at 2014 FIU GSAW Scholarly Forum (\$300)	Spring 2014
Elsa Bravo	FIU MBRS RISE Undergraduate Fellowship (\$10,000 to work in my lab)	2014-2016
Carla Abad	National Science Foundation Graduate Research Fellowship (\$132,000)	2014-2017
Marcela Ramos	Dean's Junior Research Award for presentation at 2014 ARCH conference	Spring 2014
Carla Abad	National Science Foundation Graduate Research Fellowship Honorable Mention	Spring 2013
Christopher Mendoza	1 st place oral presentation at 2012 TERRA and MAST Summer Research Internship (SRI) Mini-Symposium	Summer 2012

SERVICE TO PROFESSIONAL ASSOCIATIONS

Grant Advisory Boards

Grant Title and Role	Agency/PIs	Date
1. Kids FACE FEARS (Role: Data Safety and Monitoring Board)	PCORI PFA/ Dr. Jon Comer & Dr. Donna Pincus (Boston University; Boston Medical Center; FIU; Seattle Children's Hospital; John's Hopkins University)	2019-2022

Symposium Organization

Title	Conference	Date
2. Foundations for processing events and learning relational terms (with Tilbe Göksun)	11 th International Congress for the Study of Child Language, Edinburgh, Scotland	2008
1. Conceptual primitives for processing events and learning relational terms (with Tilbe Göksun)	16 th International Conference on Infant Studies, Vancouver, Canada	2008

Conference Panelist

Title	Conference	Date
1. Faculty Panel for "Burning Questions of the Professoriate"	Biennial Cognitive Development Society meeting, Philadelphia, PA	2011

Conference Organization

Conference	Role	Date
5. Cognitive Development Society Preconference: Development of Spatial Thinking	Sole Organizer	2015
4. 2 nd Annual South Florida Child Research Conference (Host: FIU)	Co-Organizer	2015
3. 1 st Annual South Florida Child Research Conference (Host: UM)	Co-Organizer	2014
2. 6 th Biennial Meeting of The Cognitive Development Society	Registration Coordinator	2009
1. 5 th Biennial Meeting of The Cognitive Development Society	Registration Coordinator	2007

Conference Reviewer

Conference	Date
24. <i>Cognitive Development Society</i> Biennial Conference	2025
23. <i>Society for Research in Child Development</i> Biennial Conference (Representation, Concepts and Problem-Solving Panel)	2025
22. <i>Workshop on Infant Language Development</i> , 2025	2025
21. <i>Workshop on Infant Language Development</i> , 2024	2024
20. <i>16th International Congress for the Study of Child Language</i>	2023
19. <i>Cognitive Development Society</i> Biennial Conference	2021
18. <i>Society for Research in Child Development</i> Biennial Conference (Representation, Concepts and Problem-Solving Panel)	2020
17. <i>Cognitive Development Society</i> Biennial Conference	2019
16. <i>Society for Research in Child Development</i> Biennial Conference (Representation, Concepts and Problem-Solving Panel)	2018
15. <i>Cognitive Development Society</i> Biennial Conference	2017
14. <i>Society for Research in Child Development</i> Biennial Conference (Representation, Concepts and Problem-Solving Panel)	2016
13. <i>Events in Language and Cognition</i> Workshop	2015
12. <i>Cognitive Development Society</i> Biennial Conference	2015
11. <i>Society for Research in Child Development</i> Biennial Conference (Representation, Concepts and Problem-Solving Panel)	2014
10. 5th International Conference on Spatial Cognition: Space & Embodied Cognition	2012
9. Architectures and Mechanisms for Language Processing Conference	2012
8. 13 th European Congress of Psychology, Human Development Panel	2012
7. Evolang9: The International Conference on the Evolution of Language	2012
6. <i>Society for Research in Child Development</i> Biennial Conference (Representation, Concepts and Problem-Solving Panel)	2012
5. <i>Society for Research in Child Development</i> Biennial Conference (Language: Biological, Perceptual and Cognitive Processes Panel)	2010
4. <i>Inter-Science of Learning</i> Center Student/Post-Doc Conference	2009
3. <i>Society for Research in Child Development</i> Biennial Conference (Language: Biological, Perceptual and Cognitive Bases Panel)	2008
2. <i>Cognitive Development Society</i> Biennial Conference	2005
1. <i>Society for Research in Human Development</i> Conference	2004

Ad-Hoc Journal and Book Reviewer

Bilingualism: Language and Cognition, *Child Development*; *Clinical Child and Family Psychology Review*; *Clinical Psychology Review*; *Cognition*; *Cognitive Development*; *Cognitive Science*; *Developmental Psychology*; *Developmental Science*; *Education and Treatment of Children*; *First Language*; *Frontiers in Developmental Psychology*; *Infancy*; *Infant and Child Development*; *International Journal of Behavioral Development*; *International Journal of STEM Education*; *Journal of Applied Developmental Psychology*; *Journal of Child Language*; *Journal of Cognition and Development*; *Journal of Experimental Child Psychology*; *Journal of Experimental Psychology: General*; *Journal of Learning and Instruction*; *Language and Cognitive Processes*; *Language Learning and Development*; *Learning and Instruction*; *Learning and Memory*; *Mind*, *Brain*, and *Education*

Ad-Hoc Grant Reviewer

Agency/Program	Date
12. <i>National Science Foundation (NSF)</i> – Graduate Research Fellowship Program (Psychology)	2024
11. <i>National Institutes of Health (NIH)</i> - Special Emphasis (ZHD1 DSR-H) Panel	2023
10. <i>National Institutes of Health (NIH)</i> - Human Complex Mental Functions (HCMF) Panel	2022
9. <i>National Science Foundation (NSF)</i> – Graduate Research Fellowship Program (Psychology)	2022
8. <i>National Science Foundation (NSF)</i> – Graduate Research Fellowship Program (Psychology)	2021
7. <i>Psychonomic Society</i> Travel and Student Awards Review Committee	2022 – 2017- 2020
6. <i>National Science Foundation (NSF)</i> – Brain and Cognitive Sciences Program	2017
5. <i>National Science Foundation (NSF)</i> – Development and Learning Sciences Program	2016
4. <i>National Science Foundation (NSF)</i> – Development and Learning Sciences Program	2013
3. <i>National Science Foundation (NSF)</i> – Linguistics Program	2011
2. <i>National Science Foundation (NSF)</i> – Linguistics Program	2010
1. <i>National Science Foundation (NSF)</i> – Linguistics Program	2008

Editorial Advisory Board/Reviewer

Book Title	Role	Date
2. <i>Social Environment and Cognition in Language Development: Studies in Honor of Ayhan Aksu-Koç</i>	Member/Reviewer	2016
1. <i>Theoretical and Computational Models of Word Learning: Trends in Psychology and Artificial Intelligence</i>	Member/Reviewer	2012

Professional Memberships

American Psychological Association (APA); American Psychological Society (APS); Cognitive Development Society (CDS); International Association for the Study of Child Language (IASCL); International Society on Infant Studies (ICIS); Psi Chi (The National Honor Society in Psychology); Psychonomic Society (Fellow); Sigma Xi (Fellow); Society for Research in Child Development (SRCD); Society for the Study of Human Development (SSHD)

SERVICE TO DEPARTMENT

Committee/Assignment/Event	Date
20. Curriculum Committee, Psychology, FIU	2022 – 2024
19. Director of Graduate Studies, Psychology, FIU	2021 – 2024
18. Graduate Student Health and Wellness Committee (GSH&W), Psychology, FIU	2020 – 2021
17. Personnel Practice Committee (PPC), Psychology, FIU	2019 – 2020
16. Developmental Science Program Director, Psychology, FIU	2016 – 2020
15. Graduate Education Committee, Psychology, FIU	2016 – 2024
14. Executive Advisory Board to Chair, Psychology, FIU	2016 – present
13. FIU Cub Club, Typical Recruitment and Database Creation Committee, FIU	2019 – present
12. Research Resources Committee, Center for Children and Families, FIU	2015 – 2018
11. Presentation to Annual Psychology Student Conference, Psychology, FIU	October 2015
10. Space Committee, Psychology, FIU	2014 – present
9. Clinical Science Hiring Committee, Psychology FIU	2012 – 2013
8. Developmental Science Hiring Committee, Psychology, FIU	2011 – 2012

7. Colloquium Committee, Psychology, FIU	2011 – 2014
6. Southern Association of Colleges and Schools (SACS) Written Assessments	2011
5. Research Methods Curriculum Sub-Committee, Psychology Department, FIU	2011
4. Developmental Science Program Committee, Psychology Department, FIU	2010 – present
3. Brownbag Co-Organizer, Developmental Psychology, University of Chicago	2008
2. Student Member, Developmental Graduate Admissions Committee, Temple Univ.	2005
1. Colloquium Co-Organizer, Developmental Psychology, Temple University	2003 – 2005

SERVICE TO COLLEGE

Committee/Assignment/Event	Date
23. Fellow Selection Committee, MARC U*STAR, FIU	2023
22. Fellow Selection Committee, MARC U*STAR, FIU	2022
21. Judge, CASE 3MT Competition, CASE, FIU	2021
20. Fellow Selection Committee, MARC U*STAR, FIU	2021
19. Mentor (Mentee: Alliete Alfano), FIU Faculty Mentor Program, FIU	2020 – 2024
18. Fellow Selection Committee, MARC U*STAR, FIU	2020
17. Fellow Selection Committee, MARC U*STAR, FIU	2019
16. Panelist, NIGMS Site Visit for MARC U*STAR Renewal	2018
15. Mentor (Mentee: Emily Dare), FIU Faculty Mentor Program, FIU	2018 – 2019
14. Tenure & Promotion Committee, College of Arts, Sciences & Education (CASE), FIU	2017– 2018
13. Mentor (Mentee: Nicole Schatz), FIU Faculty Mentor Program, FIU	2017– 2018
12. Reviewer, Biomedical Research Initiative Summer Research Awards, FIU	2017
11. Mentor (Mentee: Barbara King), FIU Faculty Mentor Program, FIU	2016 – 2017
10. Reviewer, Biomedical Research Initiative Summer Research Awards, FIU	2016
9. Mentee (Mentor: Lorraine Bahrick), SISH Mentor-Mentee Program, FIU	2015 – 2016
8. Faculty panel for “Women in Science Lunch and Learn” FIU’s MARC U*STAR, MBRS RISE, QBIC and Women’s Studies, Miami, FL	2014
7. Judge, MARC U*STAR & MBRS RISE Student Biomedical Mini-Symposium, FIU	2014
6. Faculty Mentor, MBRS RISE Program, FIU	2013 – 2017
5. Faculty Panel for “Preparing for the Third Year Review,” Faculty Mentor Program, FIU	2013
4. Faculty Advisor, Psychology Graduate Student Association (PGSA), FIU	2020 – 2024
	2012 – 2014
3. Faculty Mentor, TERRA/MAST Medical Summer Research Institute (SRI), FIU	2012 – 2017
2. Presentation to PASS (Psychology Ambassadors for Student Success), FIU	2012
1. Mentee (Mentor: Kalai Mathee), SISH Mentor-Mentee Program, FIU	2011 – 2015

SERVICE TO UNIVERSITY

Committee/Assignment/Event	Date
15. Ad-Hoc Member, Grievance Hearing Committee, Office of Provost, FIU	2025
14. Ad-Hoc Member Grievance Hearing Committee, Office of Provost, FIU	2023
13. Inquiry Committee (on Plagiarism case), Office of Research and Economic Development/University Graduate School, FIU	2022
12. Judge, FIU College of Engineering and Computing Senior Design Project Showcase	2022
11. Judge, Graduate Scholarly Forum, University Graduate School, FIU	2022

10. Judge, FIU Undergrad Research Conference (URFIU)	2020
9. Judge, FIU College of Engineering and Computing Senior Design Project Showcase	2019
8. Judge, Graduate Scholarly Forum, University Graduate School, FIU	2014
7. Affiliated Faculty, Center for Imaging Science (CIS), FIU	2014 – present
6. Affiliated Faculty, Linguistics Program, FIU	2012 – 2016
5. Affiliated Faculty, Center for Children and Families, FIU	2012 – present
4. Affiliated Faculty, Center for Women's and Gender Studies, FIU	2011 – 2016
3. Affiliated Faculty, Institute for Child Health and Development (ICHAD), FIU	2010 – 2012
2. Affiliated Faculty, Infant Development Research Center (IDRC), FIU	2010 – 2012
1. Teaching Assistant Facilitator, Teaching and Learning Center, Temple University	2005

SERVICE TO COMMUNITY AND PUBLIC

Event	Date
28. FIU Cub Club at Take Your Child to Work Day at FIU	2024
27. FIU Cub Club at Take Your Child to Work Day at FIU	2023
26. FIU Cub Club at Take Your Child to Work Day at FIU	2022
25. FIU Cub Club at Miami Kids Easter Egg Hunt	2022
24. FIU Cub Club at Patricia and Phillip Frost Art Museum Family Day	2022
23. FIU Cub Club at Coral Gables Art Festival	2022
22. FIU Cub Club at The Village of Pinecrest's Track or Treat	2021
21. FIU Cub Club at The Village of Pinecrest's Track or Treat	2019
20. FIU Cub Club at The Miami Zoo Boo	2019
19. FIU Cub Club at the Annual Children's Trust Expo	2019
18. FIU Cub Club at Frost Science Museum Summer Camp	2019
17. FIU Cub Club at Annual FIU Faculty and Staff Picnic	2019
16. FIU Cub Club at Patricia and Phillip Frost Art Museum Family Day	2019
15. Mixtape Mondays, Frost Art Museum, Miami, FL	2018
14. Community Outreach Booth with Miami Science Museum at the Youth Fair	2016
13. Judge for Behavioral/Social Sciences Posters, Miami-Dade STEM Expo	2016
12. Community Outreach Booth, The Children's Trust Family Expo	2015
11. Scientist Sunday at Patricia and Phillip Frost Miami Science Museum	2015
10. Philanthrofest, Community Engagement Festival with Miami Science Museum	2015
9. Judge for Behavioral/Social Sciences Posters, Miami-Dade STEM Expo	2015
8. Scientist Sunday at Patricia and Phillip Frost Miami Science Museum	2014
7. Science Communication Fellow, Frost Miami Science Museum	2014 – 2016
6. Community Outreach Booth, The Children's Trust Family Expo	2014
5. Community Outreach Booth, The Children's Trust Family Expo	2013
4. Community Outreach Booth, The Children's Trust Family Expo	2012
3. Community Outreach Booth, The Children's Trust Family Expo	2011
2. Workshop presentation to preK-2 nd grade teachers from Promoting Academic Success, Boys of Color	2009
1. Workshop presentation to Spatial Intelligence Learning Center's Teacher Work Circle, Chicago Public School District Teachers	2009

MEDIA COVERAGE

1. <https://academicminute.org/karinna-rodriguez-florida-international-university-building-stem-skills-through-play/>
2. <https://news.fiu.edu/2025/fiu-researchers-takeover-academic-minute>
3. <https://news.fiu.edu/2025/even-before-they-can-read-young-children-are-visualizing-letters-and-other-objects-with-the-same-strategies-adults-use>
4. <https://www.frostscience.org/ai-corner-how-kids-think-and-what-their-eyes-can-teach-us/>
5. <https://fiu-news-magazine-staging.azurewebsites.net/2023/the-power-of-play>
6. <https://theconversation.com/english-children-lag-behind-in-geometry-parents-can-help-them-learn-through-play-246606>
7. <https://theconversation.com/how-spatial-thinking-could-help-children-learn-maths-and-go-on-to-use-it-in-their-careers-197583>
8. https://www.miragenews.com/playtime-language-interaction-boosts-kids-1100326/#google_vignette
9. https://www.brookings.edu/articles/time-to-talk-play-and-create-supporting-childrens-learning-at-home/?alm_mvr=0
10. https://www.brookings.edu/articles/what-cutting-edge-neuroscience-tells-us-about-early-childhood-development/?alm_mvr=0
11. <https://www.brookings.edu/articles/playful-learning-in-everyday-spaces-during-the-covid-19-crisis-and-beyond/>
12. <https://medicalxpress.com/news/2023-10-interactive-language-playtime-kids-spatial.html>
13. <https://www.metroparent.com/education/how-to-teach-kids-spatial-intelligence/>
14. <https://www.nbcmiami.com/news/local/fiu-study-of-toddlers-aims-to-increase-stem-involvement/27757/>
15. <https://academicminute.org/shannon-pruden-florida-international-university-gender-gap-in-stem/>
16. <https://www.insidehighered.com/audio/2018/04/02/gender-gap-stem>
17. <https://boldscience.org/what-role-does-spatial-thinking-play-in-stem/>
18. <https://www.cbsnews.com/news/new-clues-on-how-babies-learn-words/>
19. <https://www.psychologytoday.com/us/blog/psychology-for-modern-living/202309/its-more-than-just-a-walk>
20. https://www.washingtonpost.com/health/roaming-kids-adult-navigating-confidence/2021/08/13/3960b2b2-f94c-11eb-9c0e-97e29906a970_story.html
21. <https://theconversation.com/kids-set-free-to-roam-on-their-own-feel-more-confident-navigating-in-adulthood-163972>
22. <https://theconversation.com/five-easy-ways-to-boost-childrens-spatial-skills-101029>
23. <https://theconversation.com/blocks-are-still-the-best-present-you-can-buy-children-for-christmas-87171>
24. https://www.huffpost.com/entry/why-apps-should-be-for-pa_b_9985986
25. <https://www.psychologicalscience.org/news/releases/new-research-from-psychological-science-177.html>
26. <https://www.fatherly.com/parenting/things-boys-get-from-parents>
27. https://medicalxpress.com/news/2018-08-easy-ways-boost-children-spatial.html?src_id=alt
28. https://medicalxpress.com/news/2017-10-parents-early-word-choices-widen.html?src_id=alt
29. https://cumberlink.com/lifestyles/parenting/kids-set-free-to-roam-on-their-own-feel-more-confident-navigating-in-adulthood/article_832a6999-7ce6-5696-89ed-92d270eec17d.html
30. <https://www.theepochtimes.com/health/kids-set-free-to-roam-on-their-own-feel-more-confident-navigating-in-adulthood-3925169>
31. <https://www.yahoo.com/news/kids-set-free-roam-own-122517842.html>
32. https://www.npr.org/sections/13.7/2016/10/17/498218201/do-we-need-scientific-idioms-for-everyday-experience?utm_medium=RSS&utm_campaign=137cosmosandculture

33. <https://www.kqed.org/mindshift/43827/how-teaching-spatial-skills-could-be-part-of-a-schools-strategic-plan>
34. <https://www.kqed.org/mindshift/43090/steps-to-help-foster-a-preschoolers-spatial-reasoning-skills>
35. <https://youtu.be/ibUaKgVMgLQ>

REFERENCES

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