

Education

Ph.D., Educational Psychology (2013), The Pennsylvania State University, University Park, PA.
Dissertation: *Inspiring integration in college students reading multiple biology texts.*

M.S., Educational Psychology (2007), The Pennsylvania State University, University Park, PA.
Thesis: *Intertextuality: A study of readers with multiple texts.*

B.A., Psychology/Sociology (2005), Thiel College, Greenville, PA.
Honors: valedictorian, Dean's Key, summa cum laude.

Academic Appointments

2017-present **Assistant Professor of Educational Psychology**, Arizona State University,
Mary Lou Fulton Teachers College, Division of Teacher Preparation
▪ Affiliate Faculty: *Institute for Social Science Research* (2021-present)

2013-2017 **Postdoctoral Scholar**, *Quality Talk: Developing students' discourse to promote critical-analytic thinking, epistemic cognition, and high-level comprehension*, funded by the
Institute of Education Sciences.

Publications

*doctoral student at time of publication acceptance

+former doctoral student with earned Ph.D. at time of publication acceptance

Journal Articles

21. Starrett, E.*, **Firetto, C. M.**, & Jordan, M. E. (2022). Using authentic discussions to promote STEM teachers' discussion competency and enactment. *Classroom Discourse*. <https://doi.org/10.1080/19463014.2021.2013266>
20. **Firetto, C. M.**, Van Meter, P. N., Kottmeyer*, A. M., Turns, S. R., & Litzinger, T. A. (2021). A replication and extension of the Thermodynamics Conceptual Reasoning Inventory (TCRI): Measuring undergraduate students' understanding of introductory thermodynamics concepts. *International Journal of Science Education*, 43(15), 2555-2576. <https://doi.org/10.1080/09500693.2021.1975847>
19. Wei, L.⁺, **Firetto, C. M.**, Duke, R.*, Greene, J. A., & Murphy, P. K. (2021). High school students' use of epistemic ideals and reliable processes during small-group Quality Talk discussions in science. *Education Sciences*, 11(10), 616. <https://doi.org/10.3390/educsci11100616>
18. Lobczowski, N. G.⁺, Allen, E. M.*, **Firetto, C. M.**, Greene, J. A., & Murphy, P. K. (2020). An exploration of social regulation of learning during scientific argumentation discourse. *Contemporary Educational Psychology*, 63(4), 1-17. <https://doi.org/10.1016/j.cedpsych.2020.101925>

17. Murphy, P. K., Ebersöhn, L., Funke, M. F., & **Firetto, C. M.** (2020). Exploring the structure and content of discourse in remote, rural South African classrooms. *South African Journal of Education, 40*(2), 1-11. <http://dx.doi.org/10.15700/saje.v40ns2a1826>
16. **Firetto, C. M.**, Murphy, P. K., Greene, J. A., Li, M.*, Wei, L.*, Montalbano, C.*, Hendrick, B.*, & Croninger, R. M. V.* (2019). Bolstering students' written argumentation by refining an effective discourse intervention: Negotiating the fine line between flexibility and fidelity. *Instructional Science, 47*, 181-214. <https://doi.org/10.1007/s11251-018-9477-x>
15. Wei, L.*, **Firetto, C. M.**, Murphy, P. K., Li, M.*, Greene, J. A., & Croninger, R. M. V.* (2019). Facilitating fourth-grade students' written argumentation: The use of an argumentation graphic organizer. *The Journal of Educational Research, 112*(5), 627-639. <https://doi.org/10.1080/00220671.2019.1654428>
14. **Firetto, C. M.**, & Van Meter, P. N. (2018). Inspiring integration in college biology students reading multiple texts. *Learning and Individual Differences, 65*, 123-134. <https://doi.org/10.1016/j.lindif.2018.05.011>
13. Murphy, P. K., Greene, J. A., **Firetto, C. M.**, Hendrick, B.*, Li, M.*, Montalbano, C.*, & Wei, L.* (2018). Quality Talk: Developing students' discourse to promote high-level comprehension. *American Educational Research Journal, 55*(5), 1113-1160. <https://doi.org/10.3102/0002831218771303>
12. Wei, L.*, Murphy, P. K., & **Firetto, C. M.** (2018). How can teachers facilitate productive small-group talk? An integrated taxonomy of teacher discourse moves. *Elementary School Journal, 118*(4), 578-609. <https://doi.org/10.1086/697531>
11. Kosh, A. E.*, Greene, J. A., Murphy, P. K., Burdick, H., **Firetto, C. M.**, & Elmore, J. (2017). Automated scoring of students' small-group discussions to assess reading ability. *Educational Measurement: Issues and Practice, 37*(2), 20-34. <https://doi.org/10.1111/emip.12174>
10. Murphy, P. K., Greene, J. A., **Firetto, C. M.**, Li, M.*, Lobczowski, N. G.*, Duke, R. F.*, Wei, L.*, & Croninger, R. M. V.* (2017). Exploring the influence of homogeneous versus heterogeneous grouping on students' text-based discussions and comprehension. *Contemporary Educational Psychology, 51*, 336-355. <https://doi.org/10.1016/j.cedpsych.2017.09.003>
9. Murphy, P. K., **Firetto, C. M.**, & Greene, J. A. (2017). Enriching students' scientific thinking through relational reasoning: Seeking evidence in texts, task, and talk. *Educational Psychology Review, 29*(1), 105-117. <https://doi.org/10.1007/s10648-016-9387-x>
8. **Firetto, C. M.**, Van Meter, P. N., Turns, S. R., & Litzinger, T. A. (2016). The validation of a conceptual reasoning inventory for introductory thermodynamics. *International Journal of Engineering Education, 32*(6), 2635-2652. http://www.ijee.ie/latestissues/Vol32-6/25_ijee3340ns.pdf

7. Alexander, P. A., Dumas, D., Grossnickle, E. M., List, A., & **Firetto, C. M.** (2016). Measuring relational reasoning. *The Journal of Experimental Education*, 84(1), 119-151. <https://doi.org/10.1080/00220973.2014.963216>
6. Li, M.*, Murphy, P. K., Wang, J.*, Mason, L. H., **Firetto, C. M.**, Wei, L.*, & Chung, K. S.* (2016). Promoting reading comprehension and critical-analytic thinking: A comparison of three approaches with fourth and fifth graders. *Contemporary Educational Psychology*, 46, 101-115. <https://doi.org/10.1016/j.cedpsych.2016.05.002>
5. Murphy, P. K., Andiliou, A., **Firetto, C. M.**, Bowersox, C. M., Ramsay, C. M., & Baker, M. (2016). Intratextual persuasive messages as catalysts for higher-order thinking: An exploratory investigation. *Journal of Literacy Research*, 48(2), 134-163. <https://doi.org/10.1177/1086296X16660652>
4. Murphy, P. K., **Firetto, C. M.**, Wei, L.*, Li, M.*, & Croninger, R. M. V.* (2016). What REALLY works: Optimizing classroom discussions to promote comprehension and critical-analytic thinking. *Policy Insights from Behavioral and Brain Science*, 3(1), 27-35. <https://doi.org/10.1177/2372732215624215>
3. Van Meter, P. N., **Firetto, C. M.**, Turns, S. R., Litzinger, T. A., Cameron, C. E.*, & Shaw, C. W.* (2016). Improving students' conceptual reasoning by prompting cognitive operations. *Journal of Engineering Education*, 105(2), 245-277. <https://doi.org/10.1002/jee.20120>
2. Li, M.*, Murphy, P. K., & **Firetto, C. M.** (2014). Examining the effects of text genre and structure on 4th- and 5th-grade students' high-level comprehension as evidenced in small-group discussions. *International Journal of Educational Psychology*, 3(3), 205-234. <http://dx.doi.org/10.4471/ijep.2014.12>
1. Litzinger, T. A., Van Meter, P. N., **Firetto, C. M.**, Passmore, L., Masters, C., Turns, S. R., Gray, G., Costanzo, F., & Zappe, S. (2010). A cognitive study of problem solving in statics. *Journal of Engineering Education*, 99(4), 337-353. <https://doi.org/10.1002/j.2168-9830.2010.tb01067.x>

Book Chapters

8. **Firetto, C. M.** (2020). Learning from complementary perspectives: A systematic review. In P. Van Meter, A. List, D. Lombardi, & P. Kendeou (Eds). *Handbook of learning from multiple perspectives and representations* (pp. 223-244). Routledge.
7. Murphy, P. K., & **Firetto, C. M.** (2018). Quality Talk: A blueprint for productive talk. In P. K. Murphy (Ed.), *Classroom discussions in education* (pp. 101-133). Routledge.
6. Murphy, P. K., **Firetto, C. M.**, & Li, M.* (2018). Knowledge and the Model of Domain Learning. In H. Fives & D. Dinsmore (Eds.), *The Model of Domain Learning: Understanding the development of expertise* (pp. 19-36). Routledge.

5. Murphy, P. K., **Firetto, C. M.**, Li, M.*, Wei, L.*, & Croninger, R. M. V.* (2017). Fostering student writing through intervention research: An examination of key components. In R. Fidalgo & T. Olive (Series Eds.) & R. Fidalgo, K. R. Harris, & M. Braaksma, (Vol. Eds.), *Studies in Writing Series: Vol. 34., Design principles for teaching effective writing*, (pp. 253-279). Brill.
4. Murphy, P. K., Wilkinson, I. A. G., Soter, A. O. & **Firetto, C. M.** (2017). Instruction based on discussion. In R. E. Mayer & P. A. Alexander (Eds.), *Handbook of research on learning and instruction* (2nd ed, pp. 432-459). Routledge.
3. Murphy, P. K., **Firetto, C. M.**, & Long, V. A.* (2015). Harnessing the power of knowledge and beliefs in teaching and learning: Interventions that promote change. In D. Scott & E. Hargreaves (Eds.), *SAGE handbook of learning* (pp. 388-403). SAGE Publications.
2. Van Meter, P. N., & **Firetto, C. M.** (2013). Cognitive Model of Drawing Construction: Learning through the construction of drawings. In G. Schraw, M. McCrudden, & D. Robinson (Eds.), *Learning through visual displays* (pp. 247-280). Information Age Publishing.
1. Van Meter, P. N., & **Firetto, C. M.** (2008). Intertextuality and the study of new literacies: Research critique and recommendations. In J. Coiro, M. Knobel, C. Lankshear, & D. J. Leu (Eds.), *Handbook of research on new literacies* (pp. 1079-1092). Lawrence Erlbaum.

Encyclopedia Entries

2. Murphy, P. K., **Firetto, C. M.**, Lloyd, G. M., Wei, L., & Baszczewski, S. E.* (2020). Classroom discussions. In L. Zhang (Ed.) *Oxford Research Encyclopedia of Education*. Oxford University Press. <http://dx.doi.org/10.1093/acrefore/9780190264093.013.869>
1. **Firetto, C. M.**, & Murphy, P. K. (2019). Metacognition. In J. S. Damico & M. S. Ball (Eds.), *The SAGE encyclopedia of human communication sciences and disorders*. SAGE.

Online and Other Publications

5. Murphy, P. K., **Firetto, C. M.**, Greene, J. A., & Butler, A. M. (2017). *Analyzing the talk in Quality Talk discussions: A coding manual*. doi.org/10.18113/S1XW64
4. Van Meter, P. N., **Firetto, C. M.**, Turns, S. R., Litzinger, T. A., Cameron, C. E.*, & Shaw, C. W.* (2016). Right side of the law: A non-traditional thermodynamics assignment offers a model for teaching engineering fundamentals. *ASEE Prism*, 26(1), 41. [Invited essay based on the 2016 *Journal of Engineering Education* publication] Available at <http://www.asee-prism.org/jec-selects-4/>
3. Murphy, P. K., Greene, J. A., & **The Quality Talk Team**. (2016). *Quality Talk Language Arts Engagement Video* [video presentation]. Institute of Education Sciences, played at the Principal Investigators Meeting, Washington, DC. Available at <http://www.qualitytalk.psu.edu/2014/03/18/qllanguagearts>

2. Murphy, P. K., & **Firetto, C. M.** (March 4, 2015). *Swinging for the Fences: Education interventions make a difference for learners* [blog post]. Available at <https://www.psychologytoday.com/blog/psyched/201503/swinging-the-fences/>
1. Murphy, P. K., Greene, J. A., & **The Quality Talk Team.** (2015). *Promoting Quality Talk in High School STEM Classes* [video presentation]. Teaching and Learning Video Showcase, The National Science Foundation. Washington, DC. Available at <http://videohall.com/p/532>

Technical Reports

5. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2018). *Quality Talk: Developing students' discourse to promote critical-analytic thinking, epistemic cognition, and high-level comprehension.* (Final Report). The Pennsylvania State University.
4. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2017). *Quality Talk: Developing students' discourse to promote critical-analytic thinking, epistemic cognition, and high-level comprehension.* (Technical Report No. 4). The Pennsylvania State University.
3. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2016). *Quality Talk: Developing students' discourse to promote critical-analytic thinking, epistemic cognition, and high-level comprehension.* (Technical Report No. 3). The Pennsylvania State University.
2. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2015). *Quality Talk: Developing students' discourse to promote critical-analytic thinking, epistemic cognition, and high-level comprehension.* (Technical Report No. 2). The Pennsylvania State University.
1. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2014). *Quality Talk: Developing students' discourse to promote critical-analytic thinking, epistemic cognition, and high-level comprehension.* (Technical Report No. 1). The Pennsylvania State University.

Presentations

National and International

44. **Firetto, C. M.,** Starrett, E.*, Jaber, L.*, & Kingsbury, J. (2021, October). Using study-group discussions to promote connection generation in an introductory anatomy and physiology course. Presented at the Scholarly Consortium of Innovative Psychology in Education (SCIPIE), virtual.
43. **Firetto, C. M.** (2021, July). Examining teachers' critical-analytic thinking and discussion efficacy after participating in content discussions: A follow-up study. In P. K. Murphy (Chair), Leveraging teacher-researcher collaborations to support students' critical-analytic thinking through discussion. Symposium conducted at the focal meeting of the World Education Research Association (WERA), virtual.
42. Primor, L. ⁺, **Firetto, C. M.,** Katzir, T., & Yeari, M. (2021, July). Exploring the impact of reading single vs. multiple texts on integration synthesis tasks and the underexamined role

of topic. Presented at the Society for the Scientific Study of Reading (SSSR) conference, virtual.

41. **Firetto, C. M.** (2021, April). Embedding Authentic Discussions in Professional Development to Promote Science Teachers' Discussion Competency and Enactment. Presented at the annual meeting of the American Educational Research Association (AERA), virtual.
40. **Firetto, C. M.**, Hyatt, J.-P. K., Kingsbury, J., & Penkrot, T. A. (2020, August). Using in-class learning activities to promote integration strategy use. Presented at the annual convention of the American Psychological Association (APA), Washington, DC [virtual]. DOI [10.17605/OSF.IO/K2DHU](https://doi.org/10.17605/OSF.IO/K2DHU)
39. **Firetto, C. M.** (2020, April). *Leveraging Teacher-Researcher Collaborations to Support Students' Critical-Analytic Thinking through Discussion* (symposium/discussant). Annual meeting of the American Educational Research Association, San Francisco, CA. (Conference Cancelled).
38. **Firetto, C. M.** (2020, April). *Building teachers' critical-analytic thinking and discussion efficacy through content discussions*. In C. Firetto (Chair), *Leveraging Teacher-Researcher Collaborations to Support Students' Critical-Analytic Thinking through Discussion*. Annual meeting of the American Educational Research Association, San Francisco, CA. (Conference Cancelled).
37. **Firetto, C. M.**, & Mulhearn, S. C.* (2018, August). *The influence of text format on college biology students' integration: Multiple vs. single texts*. Presented at the annual convention of the American Psychological Association, San Francisco, CA.
36. Croninger, R. M. V.*, Murphy, P. K., **Firetto, C. M.**, Li, M.*, & Wei, L.* (2018, August). *Facilitating small-group discussions across different ability groups: Effect of teacher discourse moves*. Presented at the annual convention of the American Psychological Association, San Francisco, CA.
35. Murphy, P. K., Greene, J. A., **Firetto, C. M.**, Li, M.*, Duke, R. F.*, Croninger, R. M. V.*, & Lobczowski, N. G.* (2018, April). *Promoting students' multifaceted literacy competence through Quality Talk: A quasi-experimental study*. Presented at the annual meeting of the American Educational Research Association, New York, NY.
34. Murphy, P. K., **Firetto, C. M.**, & Li, M.* (2018, April). *Knowledge and the MDL: What we knew, what we know, and what remains unknown*. Presented at the annual meeting of the American Educational Research Association, New York, NY.
33. Allen, E.*, Montalbano, C.*, Greene, J. A., Murphy, P. K., Butler, A. M., **Firetto, C. M.**, & Wei, L.* (2017, August). *The effects of Quality Talk on STEM relational reasoning*. Presented at the annual convention of the American Psychological Association, Washington, DC.
32. Li, M.*, Murphy, P. K., **Firetto, C. M.**, & Wei, L.* (2017, August). *Effects of text and learner characteristics on the acquisition of high-level comprehension*. Presented at the annual convention of the American Psychological Association, Washington, DC.

31. Montalbano, C.*, Allen, E.*, Greene, J. A., Murphy, P. K., **Firetto, C. M.**, & Wei, L.* (2017, August). *Investigating changes in relational reasoning in small-group discourse over time and across ability groups*. Presented at the annual convention of the American Psychological Association, Washington, DC.
30. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2017, July). *Using Quality Talk Language Arts to enhance fifth-grade students' argumentation and writing*. In M. McKeown & A. Crosson (Chairs), *Exploring intervention effects on students' argument writing*. Symposium conducted at the annual meeting of the Society for the Scientific Study of Reading, Halifax, Nova Scotia.
29. **Firetto, C. M.** (2017, April). *Strategies to Support Literacy Learning*. Chairperson for roundtable conducted at the annual meeting of the American Educational Research Association, San Antonio, TX.
28. Wei, L.*, **Firetto, C. M.**, Murphy, P. K., Li, M.*, & Croninger, R. M. V.* (2017, April). *The Effect of Using a Graphic Organizer on Fourth Graders' Argumentative Writing*. Presented at the annual meeting of the American Educational Research Association, San Antonio, TX.
27. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2016, December). *A quantitative and qualitative examination of homogeneous and heterogeneous grouping in classroom discourse*. Presented at the Institute of Education Sciences Annual Principal Investigators Meeting, Washington, DC.
26. **Firetto, C. M.**, Murphy, P. K., Greene, J. A., Li, M.*, Wei, L.*, Montalbano, C.*, Hendrick, B.*, & Croninger, R. M. V.* (2016, April). *Using Quality Talk to foster transfer of students' critical-analytic discussions to their argumentative writing*. Presented at the annual meeting of the American Educational Research Association, Washington, DC.
25. Greene, J. A., Murphy, P. K., Butler, A., **Firetto, C. M.**, Allen, E. M.*, Wang, J.*, Wei, L.*, & Yu, S.* (2016, April). *Fostering relational reasoning and scientific understanding through Quality Talk discourse*. In D. Dumas (Chair), *The malleability of relational reasoning: Effects of direct or indirect interventions on learning processes and outcomes*. Symposium conducted at the annual meeting of the American Educational Research Association, Washington, DC.
24. Kosh, A. E., Greene, J. A., Murphy, P. K., Burdick, H., & **Firetto, C. M.** (2016, April). *Measuring reading comprehension through automated analysis of students' small-group discussions*. Paper presented at the annual meeting of the NCME, Washington, DC.
23. Murphy, P. K., Greene, J. A., **Firetto, C. M.**, Hendrick, B.*, Montalbano, C.*, Li, M.*, & Wei, L.* (2016, April). *Enhancing students' comprehension and critical-analytic thinking through Quality Talk Discussions*. Poster presented at the annual meeting of the American Educational Research Association, Washington, DC.
22. Murphy, P. K., Greene, J. A., **Firetto, C. M.**, Li, M.*, Lobczowski, N. G.*, Croninger, R. M. V.*, & Duke, R. F.* (2016, April). *Examining the effect of homogeneous and heterogeneous grouping in classroom discourse*. In L. Ebersöhn (Chair), *Public scholarship to educate diverse democracies*. Symposium conducted at the focal meeting of the World Education Research Association, Washington, DC.

21. Murphy, P. K., Greene, J. A., **Firetto, C. M.**, Montalbano, C.*, Li, M.*, & Wei, L.* (2016, April). Promoting relational reasoning in elementary students' writing. In D. Dumas (Chair), *The malleability of relational reasoning: Effects of direct or indirect interventions on learning processes and outcomes*. Symposium conducted at the annual meeting of the American Educational Research Association, Washington, DC.
20. Wei, L.*, Murphy, P. K., & **Firetto, C. M.** (2016, April). Toward an integrated taxonomy of teacher discourse moves in small-group, text-based discussions. Presented at the annual meeting of the American Educational Research Association, Washington, DC.
19. Murphy, P. K., Greene, J. A., & **Firetto, C. M.** (2015, December). *Quasi-experimental evidence of the efficacy of Quality Talk's effects upon fifth-grade students' argumentation skills*. Presented at the Institute of Education Sciences Annual Principal Investigators Meeting, Washington, DC.
18. **Firetto, C. M.** (2015, August). Writing Session. Chairperson at the biannual meeting of the European Association for Research on Learning and Instruction, Limassol, Cyprus.
17. **Firetto, C. M.**, Murphy, P. K., Greene, J. A., Li, M.*, Wei, L.*, & Montalbano, C.* (2015, August). *Enhancing students' written argumentation through Quality Talk*. Presented at the biannual meeting of the European Association for Research on Learning and Instruction, Limassol, Cyprus.
16. Li, M.*, **Firetto, C. M.**, Murphy, P. K., Greene, J. A., Wei, L.*, Croninger, R. M. V.*, & Montalbano, C.* (2015, August). *Examining the transfer effects of Quality Talk on fourth graders' written argumentation*. Presented at the annual convention of the American Psychological Association, Toronto, Canada.
15. **Firetto, C. M.**, & Van Meter, P. N. (2015, April). *Inspiring integration in college students reading multiple biology texts*. Presented at the annual meeting of the American Educational Research Association, Chicago, IL.
14. Long, V. A.*, **Firetto, C. M.**, & Murphy, P. K. (2014, August). *Transfer effects from small group discussions of text to writing*. Presented at the annual convention of the American Psychological Association, Washington, DC.
13. **Firetto, C. M.**, & Van Meter, P. N. (2013, August). *Cognitive Model of Drawing Construction: Using think alouds to measure cognitive processes*. Presented at the biannual meeting of the European Association for Research on Learning and Instruction, Munich, Germany.
12. Van Meter, P. N., & **Firetto, C. M.** (2013, August). *What can drawings tell us about drawing to learn?* Presented at the biannual meeting of the European Association for Research on Learning and Instruction, Munich, Germany.
11. Turns, S. R., Van Meter, P. N., **Firetto, C. M.**, & Litzinger, T. A. (2013, June). *Development of an intervention to improve students' conceptual understanding of thermodynamics*. Presented at the annual conference and exposition of the American Society for Engineering Education, Atlanta, GA.

10. **Firetto, C. M.,** & Van Meter, P. N. (2012, August). *The effect of task instruction and text overlap on the integration of multiple cross-domain sources*. Presented at the biannual conference of the Text and Graphics Special Interest Group of the European Association for Research on Learning and Instruction, Grenoble, France.
9. **Firetto, C. M.,** & Van Meter, P. N. (2011, August). *Effects of drawing and diagram selection on learning from multiple representations in biology*. Presented at the biannual conference of the European Association for Research on Learning and Instruction, Exeter, UK.
8. Shull, P., **Firetto, C. M.,** & Passmore, L. (2011, June). *Improved team function: Student-driven team rules and consequences*. Presented at the annual conference and exposition of the American Society for Engineering Education, Vancouver, CA.
7. Passmore, L., Litzinger, T. A., Masters, C., Turns, S. R., Van Meter, P. N., **Firetto, C. M.,** & Zappe, S. (2010, June). *Sources of students' difficulties with couples and moments in statics*. Presented at the annual conference and exposition of the American Society for Engineering Education, Louisville, KY.
6. Litzinger, T. A., **Firetto, C. M.,** Van Meter, P. N., Passmore, L., Masters, C., Turns, S. R., & Zappe, S. (2009, February). *Improving students' ability to model during problem-solving in statics*. Presented at the annual conference and exposition of the American Society for Engineering Education, Austin, TX.
5. Van Meter, P. N., **Firetto, C. M.,** & Litzinger, T. A. (2008, August). *Solving engineering problems using multiple representations: Differences between strong and weak problem solvers*. Presented at the biannual conference of the Text and Graphics Special Interest Group of the European Association for Research on Learning and Instruction, Tilburg, Netherlands.
4. Litzinger, T. A., Van Meter, P. N., **Firetto, C. M.,** Passmore, L., Masters, C., Costanzo, F., Gray, G., Turns, S.R., & Higley, K. (2008, July). *A cognitive study of problem-solving in statics*. Presented at the Research in Engineering Education Symposium, Davos, Switzerland.
3. Litzinger, T. A., **Firetto, C. M.,** Van Meter, P. N., Passmore, L., Masters, C., & Higley, K. (2008, June). *Identifying and remediating difficulties with problem-solving in statics*. Presented at the annual conference and exposition of the American Society for Engineering Education, Pittsburgh, PA.
2. **Firetto, C. M.,** & Van Meter, P. N. (2008, April). *The effects of surface features and readers' goals on intertextuality*. Presented at the annual meeting of the American Educational Research Association, New York, NY.
1. Van Meter, P. N., **Firetto, C. M.,** & Higley, K. (2007, April). The integration of representations: A program of research for academic development. In P. A. Alexander (Chair), *The roles of perception, cognition, emotion, and social factors in academic development*. Symposium conducted at annual meeting of the American Educational Research Association, Chicago, IL.

State and Local Presentations

6. **Firetto, C. M.** (2021, February). Exploring active learning exercises in introductory anatomy and physiology courses. Invited presentation at the Teachers College Doctoral Council (TCDC) Education Research Conference, virtual.
5. Murphy, P. K., Greene, J. A., **Firetto, C. M.**, & Butler, A. M. (2016, October). *Using Quality Talk to Enhance High-Level Comprehension in Science and Language Arts*. Presented at Research Penn State 2016: Materials Day Reinvented at the Pennsylvania State University, University Park, PA.
4. Li, M.* , **Firetto, C. M.**, Murphy, P. K., Greene, J. A., Wei, L.* , Croninger, R. M. V.* , & Montalbano, C.* (2015, November). *Examining the transfer effects of Quality Talk on fourth graders' written argumentation*. Presented at the Science of Learning Poster Conference at the Pennsylvania State University, University Park, PA.
3. **Firetto, C. M.**, & Murphy, P. K. (2015, August). *Facilitating effective small-group discussions*. Invited presentation given to CHEM 110 Teaching Assistants in Training at the Pennsylvania State University, University Park, PA.
2. Wei, L.* , Murphy, P. K., & **Firetto, C. M.** (2015, February). *Toward an integrated taxonomy of teacher moves in text-based small-group discussions*. Presented at the Graduate Student Research Symposium at the Pennsylvania State University, University Park, PA.
1. Van Meter, P. N., & **Firetto, C. M.** (2013, November). *Myths about how students learn in STEM courses*. Invited presentation given to a combined session of the Mathematics Teaching Group and Center for Excellence in Science Teaching, Pennsylvania State University, University Park, PA. Available at <https://meeting.psu.edu/p7ab3x59vg1/>

Grant Applications

Firetto, C. M. (2020). Exploring active learning exercises in introductory anatomy and physiology courses. *Mary Lou Fulton Teachers College Internal Scholarship Grant* (competitive). (\$7,787; funded).

Firetto, C. M. (PI), Hyatt, J. P. (Co-PI), Kingsbury, J. (Co-PI), & Penkrot, T. (Co-PI). (2020). Leveraging collaborative in-class learning exercises (CICLES) to promote a deeper understanding of anatomy and physiology. *Institute for Social Science Research at Arizona State University* (competitive). (\$8,000; funded).

Rillero, P. (PI), & **Firetto, C. M.** (Sr. Personnel). (2020). Growing Healthy Foods: Sustainability, Nutrition, Stewardship, and Education through School-Based, Small-Area, Raised-Bed, Irrigated Farm Systems. National Institute of Food and Agriculture. USDA-NIFA-FASLP-007292. (\$198,066; unfunded).

Firetto, C. M. (PI), Hyatt, J. P. (Co-PI), Kingsbury, J. (Co-PI), & Penkrot, T. (Co-PI). (2018). Supporting undergraduate students' construction of an integrated understanding of anatomy and physiology. *Mary Lou Fulton Teachers College Internal Scholarship Grant* (competitive). (\$13,525; funded).

Summer 2009

Summer 2010

- 2008-2010 **Peer Mentor/Tutor**, The Pennsylvania State University, *Preparing Outstanding Scholars for Special Education (POSSE) leadership grant*, funded by the US Department of Education.
- 2005-2006 **Teacher/Tutor**, Total Learning Center, Wexford, PA.

Mentoring and Advising

Committee Membership - Degree Conferred

- Arizona State University:
 - Amy Collins (EdD, Leadership and Innovation; chair: Henriksen) SP 2021
 - Micah Watanabe (MS, Cognitive Psychology; chair: McNamara) SU 2020
- External Reviewer:
 - Sipikelelo Mugari (PhD, Educational Psychology at University of Pretoria, South Africa) SU 2021
 - Liron Primor (PhD, Educational Psychology at University of Haifa, Israel) SP 2020

Committee Membership - In Progress

- Chair (ASU):
 - Emily Starrett (PhD, Learning Literacies and Technology) Expected: 2024
 - Lin Yan (PhD, Learning Literacies and Technology) Expected: 2025
- Committee Member (ASU):
 - Micah Watanabe (PhD, Cognitive Psychology; chair: McNamara) Expected: 2023

Graduate Student Mentorship

- Secondary Research Advisor:
 - Shannon Mulhearn (PhD, Learning Literacies and Technology)
 - Sarah Diaz (PhD, Educational Policy and Evaluation)
- Teaching Assistant Supervisor:
 - Wendy Wakefield (PhD, Learning Literacies and Technology) FA 2019
 - Luis Perez Cortes (PhD, Learning Literacies and Technology) SP 2020
 - Emily Starrett (PhD, Learning Literacies and Technology) FA 2021

Undergraduate and Other Mentorship

- Barrett Honors Enrichment Credit Supervisor
 - TEL 215, 2018 (two students)
- Fulbright Teacher Exchange Faculty Mentor:
 - Wendy Goh (Tampines Meridian Junior College) 2020
 - Alana Rocha (Escola Estadual Mascarenhas Homem) 2020
 - Shiela Niña L. Rea-Santes (Lutucan Integrated National High School) 2021

Service

Mary Lou Fulton Teachers College, Arizona State University

- Governance and Policy Committee (Term: 2021-2024)
- LLT Program Committee (Term: 2021-2024)
 - LLT Dissertation Award Subcommittee (Co-chair, 2021)
- Continuous Improvement TAG for Elementary Education (2020-2021, 2021-2022)
 - Program Assessment Report for EED program and EED/STEM program (2020)
 - Subcommittee on Program Assessment Reports for D1 Redesign (2021)
 - Common Assessment Process and Documentation Team (SU 2021)
 - PLO Progression Level Indicator Team (SU 2021)
- Curriculum and Course Development:
 - Course coordinator for EDP 311 (2021)
 - Full redesign of EDP 310 Motivation course (2021)
 - Course update for TEL 504 (2020) followed by a full redesign (2021)
 - Development and refinement of fully-online EDP 311 course (2019, 2020)
 - Review of EDP 310 modules (2019, 2020)
 - Development and refinement of the Jumpstart Academy for West Campus Paraprofessional Cohort (2019, 2020)
 - Contributed to revisions of EDP 311 Signature Assignment (2017, 2018, 2019, 2020)
 - D1 redesign pedagogical core structure coordinator (2021)
 - D1 redesign co-lead (with L. Patton) for new course development (2021):
 - TEL 310 – Instructional Design and Planning
 - TEL 318 – Assessment for Learning
 - D1 redesign team for core course syllabus development (2020):
 - TEL 310 – Instructional Design and Planning
 - TEL 318 – Assessment for Learning
- Division and Program:
 - Contributed design ideas toward the efforts for re-envisioning education at both the Division and Program level (2018, 2019)
 - Participated in the LLT PhD cohort application review, recruitment, and interview process (2017, 2018, 2019, 2020)
 - Participated in the L&I EdD cohort application review process (2020)

Professional

- American Psychological Association (APA)
 - Program Co-Chair (2021) for Division 15
 - Reviewer for Division 15 (2018, 2019, 2022)
 - Reviewer for Division 15 Graduate Student Poster Award (2018)
 - Discussion Facilitator: Collaborative Session *Applying Psychological Science to Teaching, Learning, and Well-Being in Schools* (2018)
- American Educational Research Association (AERA)
 - Reviewer for the AERA Division C Graduate Student Research Award (2016)
 - Reviewer for AERA Division C (2017-2018)
- External Evaluator

- P. Karen Murphy (IUSE Grant) 2020, 2021
- Advisory Board Member
 - Ying-Chih Chen (NSF DRK-12) Under Review - 2021
 - Alexander De Rosa (NSF PFE-RIEF) Under Review - 2021
- Pearson Textbook Reviewer:
 - Educational Psychology (2018, 2019)
 - Child Development (2019)
- Taylor and Francis handbook reviewer:
 - Handbook prospectus (2019)

Professional Organizations

- American Educational Research Association
 - Division C: Learning and Instruction
- American Psychological Association
 - Division 15: Educational Psychology

Editor/Reviewer Experience

- Editorial Board
 - *SAGE Open* (Role: Editor, 2016 – Present)
 - *SAGE Open* (Role: Article Editor, 2015)
- Editorial Board (Role: Reviewer):
 - *Contemporary Educational Psychology* (2017 – Present)
 - *Review of Educational Research* (2018 – Present)
- Ad Hoc Reviewer:
 - *Advances in Engineering Education, British Journal of Educational Psychology, Educational Psychologist, International Journal of Educational Development, Journal of Computer Assisted Learning, Journal of Educational Psychology, The Journal of Educational Research, Journal of Engineering Education, The Journal of Experimental Education, Learning and Instruction, Reading and Writing*

Awards and Recognitions

ASU Graduate College – Outstanding Instructional Faculty Mentor	2022
MLFTC Faculty Achievement Award – Promising Scholar	2021
Outstanding Reviewer – <i>Review of Educational Research</i> (2017)	2018
<hr/>	
Office of Postdoctoral Affairs Postdoctoral Travel Award	2015, 2016, 2017
Facilitators' Choice and Public Choice Awards, Teaching and Learning Video Showcase	2015
Thevaos Graduate Scholarship in Educational Psychology	2011, 2012
College of Education Alumni Society Distinguished Graduate Scholarship	2008, 2009
Lavanda P. Muller Graduate Fellowship in Education	2006
Dean's Graduate Assistantship for Engaged Scholarship and Research in Education	2005, 2006

Workshops, Panels, and Professional Development Sessions

Presented

- 2021 *Supporting Learners' High-Level Comprehension of Text-Based Content through Tasks and Talk* for MLFTC Ph.D. Transdisciplinary Seminar.
- 2021 *Formative Assessment for Reflective Practice* [Panel Member] Workshop for the partnership between ASU and the U.S. Embassy.
<https://www.youtube.com/watch?v=HLg24dnvYXw>
- 2020 *How to Engage in Quality Talk about Science Content.* [Presenter] Workshop for science teachers participating in the Quantum Energy and Sustainable Solar Technologies (QESST) Research Experience for Teachers (RET) summer program.
- 2018 *Transdisciplinary Research Panel.* [Presenter] Presented collaborative research endeavor with CISA colleagues at MLFTC All-College Meeting.
- 2018 *How'd They Do That? Advice from Early Career Colleagues with Grant Writing Experience.* [Panel Member] Shared experiences and answered questions about grant writing with fellow junior faculty in a Junior Faculty Development Workshop.
- 2017 *Quality Talk in Science Classrooms.* [Presenter] Funded by NSF. For the Materials Research Science and Engineering Centers Research Experience for Teachers program.
- 2009 *Effective Practices for Assessment and Dissemination in Engineering Education Workshop.* [Discussion Facilitator] Funded by NSF
One-day workshop that discussed and encouraged dissemination of innovations for engineering education through novel methods.
- 2009 *Mechanics Education Workshop.* [Discussion Facilitator]. Funded by NSF
Two-day workshop that invited researchers to discuss interventions in engineering education and best practices for implementation and dissemination.

Attended

- 2016 *Advances in Mixed Methods and Publishing a Mixed Methods Study.*
The one-day workshop, by John W. Creswell, overviewed the fundamentals of mixed methods research, design, and publishing/reviewing mixed methods research.
- 2016 *Developing Skills Necessary to Succeed as Postdocs and as Future Supervisors: Mentoring Workshop.*
The half-day workshop provided postdoctoral scholars with strategies to enhance their mentoring of undergraduate and graduate students.
- 2014 *Summer Research Training Institute on Cluster Randomized Trials.*
The two-week workshop prepared education researchers for all aspects of conducting randomized control trials, including planning, designing, and analyzing.
- 2014 *Grant Writing Workshop.*
The half-day course was held during the annual AERA meeting and aided education researchers preparing to apply for an IES grant.