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UNSUCCESSFUL APPLICATIONS TO EDUCATION & EMPLOYMENT

2021-2022	24 Faculty Positions
2018	1 Postdoc Position
2012-2013	6 PhD Programs
2008-2009	8+ Universities

UNSUCCESSFUL GRANTS & FELLOWSHIPS**External Awards**

2024	General Research Fund, University Grants Council (Rating 3.5)
2024	Jacobs Foundation Research Fellowship (Top 5%; Final 25 out of 550)
2023	General Research Fund, University Grants Council (Rating 3.5)
2023	Spencer Small Grant
2023	Jacobs Fellowship
2022	APS Rising Star
2022	Spencer Postdoc Fellowship
2022	SRCD Early Career Small grant
2022	Jacobs Fellowship
2022	Jan Hawkins Award
2022	ISLS Emerging Scholar Program
2021	Spencer Postdoc Fellowship
2021	NSF CADRE Fellowship
2021	APA Division 15 Pintrich Outstanding Dissertation Award
2021	APA Division 15 Early Career Grant
2021	James S McDonnell Foundation Award - Understanding Human Cognition
2021	Spencer Small Grant
2021	SRCD Early Career Small grant
2021	SRCD Dissertation Award
2020	Spencer Postdoc Fellowship
2020	Jacobs Fellowship
2020	Spencer Small Grant
2020	AERA Deeper Learning Fellowship
2020	AERA small grant
2019	EF + Math Grant
2017	Spencer Dissertation Fellowship
2016	APS Dissertation Award

Professional Development Program

2023	CDS Early Career Symposium
2022	SRCD Towards 2044: Horowitz Early Career Scholars Program
2021	NSF SIARM Program
2019	Beyond the Ivory Tower Workshop
2017	Student Travel Award, Cognitive Development Society
2015	Student Travel Award, Society of Research in Child Development

Internal Awards

2024	Research Impact Cluster, The Education University of Hong Kong
2023	Dean's Research Award
2021	Women's Young Investigator Fellow, Worcester Polytechnic Institute
2017	GradSEHD Research Grant, University of Minnesota
2017	CEHD Alumni Scholarship, University of Minnesota
2017	Interdisciplinary Doctoral Fellowship, University of Minnesota
2016	Eva O Miller Fellowship, University of Minnesota
2016	Interdisciplinary Doctoral Fellowship, University of Minnesota
2015	Stout & Wallace Fellowship, University of Minnesota
2015	Interdisciplinary Doctoral Fellowship, University of Minnesota
2014	COGS Travel Award, University of Minnesota
2014	Robert and Corrie Beck Graduate Fellowship, University of Minnesota
2014	CEHD Alumni Scholarship, University of Minnesota
2014	Interdisciplinary Doctoral Fellowship, University of Minnesota
2014	Miller Fellowship, University of Minnesota
2010	Merit Scholarship, University of Wisconsin

REJECTED OR REVISED PUBLICATIONS

* trainee

Revised and Published Peer-Reviewed Articles

3 Rejections + 1 Revision - Lee, J. E., Ottmar, E., **Chan, J. Y. C.**, Decker-Woodrow, L., & Booker, B. (in press). In-Person vs. Virtual: Learning modality selections and movement during COVID-19 and their influence on student learning. *Learning Environments Research*.

2 Revisions - **Chan, J. Y.-C.** & Mazzocco, M. M. M. (2024). New measures of number line estimation performance reveal children's ordinal understanding of numbers. *Journal of Experimental Child Psychology*, 245, 105965. DOI: 10.1016/j.jecp.2024.105965

2 Rejections + 1 Revision - Closser, A. H., Botelho, A. F., & **Chan, J. Y.-C.** (2024). Exploring the impact of symbol spacing and problem sequencing on arithmetic performance: An educational data mining approach. *Journal of Educational Data Mining*. 16(1), 84-111. DOI: 10.5281/zenodo.11403249 [Open Access]

1 Revision - Ho, C. S. M., **Chan, J. Y.-C.**, & Lee, C. K. J. (2024). Fostering secondary students' entrepreneurial attributes and aspirations through a theory-informed learning management system. *International Journal of Educational Research Open*, 7, 100380. DOI: 10.1016/j.ijedro.2024.100380

1 Revision - Decker-Woodrow, L., Mason, C. A., Lee, J. E., **Chan, J. Y.-C.**, Sales, A., Liu, A., & Tu, S. (2023). The impacts of three educational technologies on algebraic understanding in the context of COVID-19. *AERA Open*. DOI: 10.1177/23328584231165919

2 Revisions - Closser, A. H.*, **Chan, J. Y.-C.**, Ottmar, E. R. (2023). Resisting the urge to calculate: The relation between inhibitory control and perceptual cues in arithmetic performance. *Quarterly Journal of Experimental Psychology*, 76(12), 2690-2703. DOI: 10.1177/17470218231156125

2 Revisions - **Chan, J. Y.-C.**, Nagashima, T., Closser, A. H. (2023) Participatory design for Cognitive Science: Examples from the Learning Sciences and Human-Computer Interaction. *Cognitive Science*, 47(10), e13365. DOI: 10.1111/cogs.13365

1 Revision - **Chan, J. Y.-C.**, Closser, A. H.*, Ngo, V.*, Smith, H.*, Liu, A., & Ottmar, E. (2023). Examining shifts in conceptual knowledge, procedural knowledge, and procedural flexibility in the context of two game-based technologies. *Journal of Computer Assisted Learning*, 39, 1274-1289 DOI: 10.1111/jcal.12798

1 Revision - **Chan, J. Y.-C.**, Byrne, C.*, Jerusal, J.*, Liu, A., Roberts, J.*, Ottmar, E. (2023). Keep DRAGging ON: Is solving more problems in DragonBox12+ associated with higher mathematical performance? *British Journal of Educational Technology*, 54, 943-966. DOI: 10.1111/bjet.13304

1 Rejection + 1 Revision - **Chan, J. Y.-C.**, Linnell, L. D.*, Trac, C.*, Drzewiecki, K.*., & Ottmar, E. (2023). Test of Times New Roman: Effects of font type on mathematical performance. *Educational Research for Policy and Practice*. DOI: 10.1007/s10671-023-09333-8

1 Rejection + 2 Revisions - **Chan J. Y.-C.**, Ottmar, E. R., Smith, H.*., & Closser, A. H.* (2022). Variables versus numbers: Effects of symbols and algebraic knowledge on students' problem-solving strategies. *Contemporary Educational Psychology*, 71, 102114. DOI: 10.1016/j.cedpsych.2022.102114

1 Rejection + 2 Revision - Lee, J.-E., **Chan, J. Y.-C.**, Botelho, A., & Ottmar, E. (2022). Does slow and steady win the race?: Clustering patterns of students' behaviors in an interactive online mathematics game. *Educational Technology Research and Development*, 70, 1575-1599. DOI: 10.1007/s11423-022-10138-4

6 Revisions - **Chan, J. Y. C.**, Sera, M. D. & Mazzocco, M. M. M. (2022). The influences of relational language on early numeracy skills. *Child Development*. DOI: [10.1111/cdev.13737](https://doi.org/10.1111/cdev.13737)

1 Revision - Smith, H.*., Closser, A. H.*., Ottmar, E., & **Chan, J. Y.C.** (2022). The impact of algebra worked example presentation on student learning. *Applied Cognitive Psychology*. DOI: [10.1002/acp.3925](https://doi.org/10.1002/acp.3925)

2 Revisions - **Chan, J. Y. C.**, Scalise, N. R. (2022). Relations between executive function, numeracy, and mathematics achievement in early childhood. *Cognitive Development*. DOI: [10.1016/j.cogdev.2022.101154](https://doi.org/10.1016/j.cogdev.2022.101154)

3 Rejections + 2 Revision - **Chan, J. Y. C.**, Ottmar, E., & Lee, J. E. Slow down to speed up: Longer pause time before solving problems relates to higher strategy efficiency. *Learning and Individual Differences*. DOI: [10.1016/j.lindif.2021.102109](https://doi.org/10.1016/j.lindif.2021.102109)

1 Revision - Lee, J. E., Hornburg, C. B., **Chan, J. Y. C.**, & Ottmar., E. (2022). Perceptual and number effects on students' initial solution strategies in an interactive online mathematics game. *Journal of Numerical Cognition*, 8(1), 166-182. DOI: 10.5964/jnc.8323

2 Revisions - Iannacchione, A.*., Ottmar, E., Ngo, V.*., Mason, C. A., **Chan, J. Y.-C.**, Smith, H.*., Drzewiecki, K.*., Shaw, S. T. (2022). Examining relations between math anxiety, prior knowledge, hint usage, and math performance in two different online learning contexts. *Instructional Science*. DOI: 10.1007/s11251-022-09604-6

2 Revisions - **Chan, J. Y. C.**, Lee, J. E., Mason, C. A., Sawrey, K. B., & Ottmar, E. R., (2021) From Here to There!: A dynamic algebraic notation system improves understanding of equivalence in middle-school students. *Journal of Educational Psychology*. DOI: [10.1037/edu0000596](https://doi.org/10.1037/edu0000596)

3 Revisions - **Chan, J. Y. C.**, & Mazzocco, M. M. M. (2021). Integrating qualitative and quantitative methods to develop a comprehensive coding manual: Measuring attention to mathematics in play contexts. *Methods in Psychology*. DOI: [10.1016/j.metip.2021.100044](https://doi.org/10.1016/j.metip.2021.100044)

2 Revisions - Mazzocco, M. M. M., **Chan, J. Y. C.**, Bye, J. K., Padrutt, E., Praus-Singh, T. L., Lukowski, S., Brown, E., & Olson, R. E. (2020). Attention to number varies across individual and task contexts. *Mathematical Thinking and Learning*, 22(4), 258-280. DOI: [10.1080/10986065.2020.1818467](https://doi.org/10.1080/10986065.2020.1818467)

4 Revisions - **Chan, J. Y. C.**, Praus-Singh, T. L. & Mazzocco, M. M. (2020). Parents' and young children's attention to mathematical features varies across play materials. *Early Childhood Research Quarterly*, 157, 65-77. DOI: [10.1016/j.ecresq.2019.03.002](https://doi.org/10.1016/j.ecresq.2019.03.002)

1 Revision - **Chan, J. Y. C.** & Mazzocco, M. M. (2017). Competing features influence children's attention to number. *Journal of Experimental Child Psychology*, 156, 62-81. DOI: [10.1016/j.jecp.2016.11.008](https://doi.org/10.1016/j.jecp.2016.11.008)

1 Revision - **Chan, J. Y. C.** & von Baeyer, C. L. (2016). Cognitive developmental influences on the ability of preschool-age children to self-report their pain intensity. *PAIN*, 157(5), 997-1001. DOI: [10.1097/j.pain.0000000000000476](https://doi.org/10.1097/j.pain.0000000000000476) *Featured as an editor's choice*

Revised and Published Book Chapters

2 Revisions - **Chan, J. Y.-C.**, Closser, A. H., Smith, H., Lee, J. E., Drzewiecki, K. C., & Ottmar, E. (2023). Grasping patterns of algebraic understanding: Dynamic technology facilitates learning, research, and teaching in mathematics education. In K. M. Robinson, D. Kotsopoulos, & A. Dubé (Eds), *Mathematical Learning and Cognition in Middle Childhood and Early Adolescence: Integrating Interdisciplinary Research Into Practice*.

1 Revision - McMullen, J., **Chan, J. Y. C.**, Mazzocco, M. M., & Hannula-Sormunen, M. (2019). Spontaneous mathematical focusing tendencies in mathematics development and education. In A. Norton and M. W. Alibali (Eds), *Constructing Number: Merging Perspectives from Psychology and Mathematics Education* (pp. 69 – 86). Switzerland: Springer International Publishing. https://link.springer.com/chapter/10.1007/978-3-030-00491-0_4

1 Revision - Mazzocco, M. M., **Chan, J. Y. C.**, & Prager, E. O. (2018). Working memory & specific learning disability: Math. In T. Alloway (Ed), *Working Memory and Clinical Developmental Disorders: Theories, Debates and Interventions*. Taylor and Francis. <https://doi.org/10.4324/9781315302072>

1 Revision - Mazzocco, M. M., **Chan, J. Y. C.**, & Bock, A. M. (2017). Early executive function and mathematics relations: Correlation does not ensure concordance. In C. Day-Hess, J. Sarama, D. Clements, and C. Germeroth (Eds), *Advances in Child Development and Behavior: The Development of Early Childhood Mathematics Education* (pp. 290 – 307). UK: Elsevier Academic Press. <https://doi.org/10.1016/bs.acdb.2017.05.001>

1 Revision - Mazzocco, M. M., **Chan, J. Y. C.**, & Sera, M. D. (2016). Contextual sensitivity and the large number word bias: When is bigger really more? In A. Henik (Ed), *Continuous Issues in Numerical Cognition: How Many or How Much* (pp. 81 – 103). London, United Kingdom: Elsevier Academic Press. <https://doi.org/10.1016/B978-0-12-801637-4.00004-4>