

## LAFAY Anne, PhD

**Banting Postdoctoral Fellow**, Mathematics Teaching and Learning Lab, Concordia University, Montreal  
**Speech-Language Pathology**, Quebec (Canada) and France

### Contact

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## 1. Citizenship

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French  
Permanent Residency in Canada

## 2. Education et Diploma

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- 2017 Qualification to be assistant professor in Psychology, Education, and Neurosciences (Ministère de l'enseignement supérieur et de la recherche France)
- 2016 PhD in Clinical and Experimental Medicine  
Department of Readaptation, Speech-Language Pathology (Laval University, Quebec City)  
Langage & Cognition Lab (CERVO, Quebec City)
- 2011 Master in Psychology, option in Neuropsychology  
Pierre Mendès France University, Grenoble, France
- 2010 Master in Cognitive Sciences  
Lumière Lyon 2 University, Lyon, France
- 2008 Bachelor in Sciences and Techniques of Readaptation  
Claude Bernard Lyon 1 University, Lyon, France
- 2008 Master in Speech-Language Pathology  
Claude Bernard, Lyon 1 University, Lyon, France

## 3. Awards and Distinctions

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- 2019 2<sup>e</sup> award for the publication of best article from a Master's thesis (journal Glossa)
- 2018 Award Étudiant-Chercheur Étoile (Fonds de Recherche du Québec - Société et Culture, FRQ-SC)
- 2018 Concordia University Conference and Exposition Award
- 2017 Scholarship for publication as first author (Laval University)
- 2015 Scholarship for publication as first author (Laval University)
- 2014 Award for Best Poster Presentation at the Ph.D. level (8<sup>e</sup> Journée à la recherche en Neurosciences et Santé Mentale, Laval University)
- 2014 Scholarship for publication as first author (Laval University)
- 2014 Finalist of the competition Cogito: Production of an 8-minute movie (AELIES, Laval University)
- 2013 Award of Excellence for Academic Improvement (ACCEM, Laval University)

- 2013 Conference Grant (REPAR)
- 2013 Internship Grant (AELIES, Laval University)
- 2012 Award for Best Poster Presentation at the Ph.D. level (Journée Scientifique du REPAR)

#### 4. Subventions de recherche

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- In prep* Insight Development Grant (SSHRC)  
**Lafay, A.**, Osana, H. P., & Ebbels, S. (2021-2022), *Word-problem in children with developmental language disorders and intervention with manipulatives*, up to 75,000
- Submitted* Partnership Engage Grant (SSHRC)  
 Osana, H. P., **Lafay, A.**, Houle, J., & Meloche, D. (2020-2021), *The Numeracy Kit for Kindergarten 5-Year-Olds: Just-in-Time Formative Assessment in Early Numeracy Environments*, up to \$25,000
- 2020-2025 Insight Grant (SSHRC)  
 Osana, H. P. & **Lafay, A.** (2020-2025). *Objects, Actions, and Imagination: Concrete Supports for Children's Learning of Numeration Concepts*. Social Sciences and Humanities Research Council of Canada (SSHRC), Insight Grants, \$217,301.
- 2019-2021 Banting grant (SSHRC), \$70,000 per year
- 2019-2021 Postdoctoral Fellowship Top-up Award (Faculty of Arts & Science, Concordia University), \$5,000 per year
- 2019-2021 Research funding (Office of Research, Concordia University), \$10,000 per year
- 2019-2021 Conference funding (School of Graduate Studies for Conference awards, Concordia University), \$5,000 per year
- 2018-2019 Partnership Engage Grant (SSHRC)  
 Osana, H. P., **Lafay, A.**, & Meloche, D. (2018-2019). *The Early Numeracy Partnership: Preparing kindergarteners from economically-disadvantaged communities for mathematics in the first grade*. Social Sciences and Humanities Research Council of Canada (SSHRC), Partnership Engage Grants Program, \$24,957 (with \$19,310 in contributions).

#### 5. Publications

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##### Articles in Peer-Reviewed Journals

**Lafay, A.**, Osana, H. P., & Levin, J. (submitted). Does Conceptual Transparency of Manipulatives Afford Place Value Representations in Children with Mathematics Learning Disabilities? *Journal of Learning Disabilities*.

Xu, C.\*, **Lafay, A.\***, Douglas, H., Di Lonardo Burr, S., LeFevre, J.-A., Osana, H. P., Wylie, J., Skwarchuk, S.-L., Simms, V., & Maloney, E. A. (accepted with correction). The Role of Mathematical Language Skills in Arithmetic Fluency and Word-Problem Solving for First- and Second-Language Learners. *Journal of Educational Psychology*. **\*co-first authors**

**Lafay, A.**, Osana, H. P., & Guillan, J. (accepted with correction). Can Manipulatives Help Students in the Third and Fifth Grades Understand the Structure of Word Problems? *Educational psychology*.

Marcon, L. & **Lafay, A.** (2020). Intervention mathématique à l'aide du logiciel informatique DéCaLigne ciblant la ligne numérique et le calcul chez les enfants ayant un trouble des apprentissages en mathématiques. *Glossa*, 128, 27-52.

**Lafay, A.**, & Helloin, M.-C. (2020). L'évaluation approfondie des difficultés d'apprentissage en mathématiques. *Enfance en Difficulté*, 7, 105-128.

Macoir, J., **Lafay, A.**, & Hudon, C. (2020). The impact of executive dysfunction on number transcoding in amnesic mild cognitive impairment and late-life depression. *Cognitive and Behavioral Neurology*, 33(1), 33-44.

**Lafay, A.**, Osana, H., Michaud, S., & Nosworthy, N. (2020). Dépistage des difficultés mathématiques : validation et normalisation franco-québécoise du NS-f et du TTR. *Glossa*, 127, 32-56.

Germain Colombiès, C. & **Lafay, A.** (2020). Effet des interventions en résolution de problèmes à énoncé verbal chez les adolescents ayant un trouble des apprentissages et/ou des difficultés en mathématiques: revue de littérature systématique. *Psychologie canadienne*. Pré-publication en ligne.

**Lafay, A.**, & Cattini, J. (2020). L'efficacité des interventions en mathématiques chez les enfants ayant des troubles intellectuels ou dans le cadre de syndromes génétiques : synthèse narrative d'une série de revues de littérature systématiques. *Glossa*, 127, 1-31.

**Lafay, A.**, Osana, H. P., & Valat, M. (2019). Effectiveness of manipulatives in the treatment of Mathematics Learning Disabilities: A systematic review. *Education Research International*, 2142948, 1-21.

**Lafay, A.**, Saint-Pierre, & M.-C., Macoir, J. (2019). Impairment of non-symbolic number processing in developmental dyscalculia. *Journal of Numerical Cognition*, 5(1), 86-104.

Macoir, J., **Lafay, A.**, & Hudon, C. (2019). Educued lexical access to verbs in individuals with subjective cognitive decline. *American Journal of Alzheimer's Disease and Other Dementias*, 34(1), 5-15.

**Lafay, A.**, Echerbault, S., & Helloin, M.C. (2019). Validation des subtests sur les fractions de la batterie d'évaluation Examath 8-15. *Glossa*, 125, 1-24.

Marcon, L. & **Lafay, A.** (2019). Trouble des apprentissages en mathématiques et ligne numérique : revue systématique de la littérature. *Glossa*, 124, 34-52.

**Lafay, A.**, & Cattini, J. (2018). Analyse psychométrique d'outils d'évaluation mathématiques utilisés auprès des enfants francophones. *Revue Canadienne d'Orthophonie et d'Audiologie*, 42(2), 147-164.

**Lafay, A.**, Archambault, S., Vigneron, M., & Nosworthy, N. (2018). Version française du test Numeracy Screener (NS-f), un outil de dépistage des difficultés de traitement du nombre et des quantités. *Glossa*, 123, 18-32.

**Lafay, A.**, Macoir, J., & Saint-Pierre, M.-C. (2017). Impairment of Arabic and spoken numbers processing in developmental dyscalculia. *Journal of Numerical Cognition*, 3(3), 1-22.

**Lafay, A.**, Saint-Pierre, M.-C., & Macoir, J. (2016). The mental number line in dyscalculia: Impaired number sense or access from symbolic numbers? *Journal of Learning Disabilities*, 50(6), 672-683.

**Lafay, A.**, Saint-Pierre, M.-C., & Macoir, J. (2016). Normalisation franco-québécoise du test Zareki-R pour l'évaluation des habiletés mathématiques auprès d'enfants de 8-9 ans. *Glossa*, 119, 41-54.

Côté, I., **Lafay, A.**, & Macoir, J. (2015). L'acquisition du vocabulaire chez l'enfant : Contributions de la mémoire à court terme séquentielle et de la mémoire sémantique. *Glossa*, 118, 16-26.

**Lafay, A.**, Saint-Pierre, M.-C., & Macoir, J. (2015). Normalisation franco-québécoise du Tempo Test Rekenen pour l'évaluation des habiletés mathématiques auprès d'enfants de 8-9 ans. *Glossa*, 118, 27-39.

**Lafay, A.**, Saint-Pierre, M.-C., & Macoir, J. (2014). Revue narrative de littérature sur les troubles cognitifs numériques dans la dyscalculie. *Revue Canadienne de Psychologie*, 55 (3).

**Lafay, A.**, Saint-Pierre, M.-C., & Macoir, J. (2014). L'évaluation des habiletés mathématiques de l'enfant : inventaire critique des outils disponibles. *Glossa*, 116, 33-58.

**Lafay, A.**, Saint-Pierre, M.-C., & Macoir, J. (2013). Développement des systèmes numériques non symboliques et prédicteurs de réussite mathématique. *Glossa*, 112, 1-17.

**Lafay, A.**, Thevenot, C., Castel, C., & Fayol, M. (2013). The role of fingers in number processing in young children. *Frontiers in Psychology*, 4, 488.

### Articles in Professional and Non-Peer-Reviewed Journals

**Lafay, A.** (2017). Principe d'intervention en cognition mathématique. *OrthoMagazine*, 130, 24-27.

**Lafay, A.**, & Helloin, M.-C. (2017). Examath 8-15, une batterie informatisée d'évaluation des habiletés mathématiques. *Rééducation Orthophonique*, 270, 145-165.

**Lafay, A.**, Saint-Pierre, M.-C., & Macoir, J. (2017). Déficits cognitifs numériques impliqués dans la dyscalculie développementale : des données d'une thèse à la pratique clinique, *Rééducation Orthophonique*, 269, 79-96.

### Book chapters

Osana, H. P., Adrien, E., **Lafay, A.**, Foster, K., Vaccaro, K. K., Wagner, V., & MacCaul, R. (in prep). *Fourth-Graders' Partitioning Strategies: Toward a Theoretical Model for the Design of Equal Sharing Problems*. In Robinson, K. M., Kotsopoulos, D., & Dubé, A. (Eds.), *Mathematical Learning and Cognition in Middle Childhood and Early Adolescence: Integrating Interdisciplinary Research into Practice* (pp. XX-XX). New York, NY: Springer.

Desmarais, K., Osana, H. P., & **Lafay, A.** (2019). *Teaching Problem Solving to Children with Learning Difficulties and Intellectual Disabilities: Support for Schema Based Instruction*. In Robinson, K., Osana, H. P., & Kotsopoulos, D. (Eds.), *Interdisciplinary perspectives on early mathematical learning and cognition* (pp. 203-221). New York, NY: Springer.

Turgeon, Y., Macoir, J., & **Lafay, A.** (2015). Classical tests for speech and language disorders. In James D. Wright (Ed.), *International encyclopedia of the social & behavioral sciences, 2nd ed., Vol 3* (pp. 792–798). Oxford: Elsevier.

### Conference Proceedings

**Lafay, A.** & Osana, H. P. (2021). Manipuler des objets permet-il toujours de développer la pensée mathématique de l'enfant? *Actes des XXIème rencontres de l'Unadréo*. Paris, France.

Haddad, R., Henry, G., & **Lafay, A.** (2021). Les verbes polysémiques non-spécifiquement mathématiques dans les consignes mathématiques. *Actes des XXIème rencontres de l'Unadréo*. Paris, France.

Raimbault, S. & **Lafay, A.** (2021). Efficacité d'une intervention ciblant la comptine numérique chez des enfants ayant un trouble développemental du langage. *Actes des XXIème rencontres de l'Unadréo*. Paris, France.

Osana, H. P., **Lafay, A.** & Blondin, A. (2018). PicPVT, une tâche d'évaluation de la compréhension de la représentation duelle des symboles dans les nombres: Validation chez des enfants de 1<sup>er</sup> année de primaire. *Acte de congrès 2018, rencontres d'Espace Mathématique Francophone*. Paris, France.

**Lafay, A.** (2018). Le dépistage du trouble d'apprentissage en mathématiques: Présentation de deux outils. *Actes des XVIIIème rencontres de l'Unadréo*. Paris, France.

### Conference Presentations

**Lafay, A.** & Osana, H. P. (July 2021). *Impact of Transparency of Manipulatives used in an Explicit Intervention on the Place Value Learning in Children with Mathematics Learning Disabilities*. Submitted to the International Conference on Learning Disabilities. Stockholm, Sweden.

**Lafay, A.** & Osana, H. P. (April 2021). *Effect of Linearity of Manipulatives in Number Representation in First Graders*. Submitted to the biennial conference of the Society of Research in Child Development (SRCD), virtual meeting.

**Lafay, A.**, & Osana, H. P. (June 2020). *Numeration Errors in Children with Mathematics Learning Disabilities as a Function of the Physical Affordances of Concrete Objects*. Poster to be presented at The 3<sup>rd</sup> Mathematical Cognition and Learning Society Conference, Dublin, Ireland. [Canceled because of the covid-19]

LeFevre, J.-A., Skwarchuk, S.-L., Maloney, E., Xu, C., Osana, H., **Lafay, A.**, Merkley, R., Di Lonardo, S., & Douglas H. (June 2020). *Exploring transactional relations between spatial and mathematical skills: The case of the number line and*

*spatial span*. Presented at Annual conference of Canadian Psychology Association, Montréal, QC, Canada. [Canceled because of the covid-19]

Maccaul, R., Osana, H. P., & **Lafay, A.** (mai 2020). Soutenir les activités numériques des enseignants de maternelle dans leur classe. To be presented at ACFAS, Sherbrooke, Canada. [Canceled because of the covid-19]

**Lafay, A.**, Adrien, E. & Osana, H. P. (2020, Apr 17 - 21) *Second Graders' Domain-Specific Conceptual Difficulties in Base 10 Numeration* [Paper Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/u7n4h4y> (Conference Canceled)

Rothschild, N., Orsini, A., Osana, H. P., Skwarchuk, S., LeFevre, J., **Lafay, A.** & Maloney, E. o. (2020, Apr 17 - 21) *20 or Vingt? French Immersion Students' Language Choices When Counting Out Loud* [Roundtable Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/rbatulm> (Conference Canceled)

Adrien, E., Lafay, A., Osana, H. P., K. Vaccaro, K. & Foster, K. (2020, Apr 17 - 21) *Effects of Problem Features on Children's Partitioning Strategies: A Conceptual Replication* [Poster Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/rbmk42x> (Conference Canceled)

Dionne, M., Bilodeau, J., **Lafay, A.**, Macoir, J. (3 avril 2020). *Développement du test de détection des troubles acquis du traitement cognitif des nombres de Québec (CALQ)*. Poster à la Conférence Annuelle de l'Association québécoise des orthophonistes et audiologistes (AQOA), Montréal, Canada. [Canceled because of the covid-19]

Osana, H. P. & **Lafay, A.** (November 2019). *The relationship between analogical reasoning and second-graders' structural knowledge of number*. Presented at North American Chapter of the International Group for the Psychology of Mathematics Education, St. Louis, Missouri, USA.

Dionne, M., Bilodeau, J., Légaré, A., **Lafay, A.**, Macoir, J. (November 2019). *Développement du test de détection des troubles acquis du traitement cognitif des nombres du Québec*. Poster presented at 12<sup>e</sup> journée de la recherche en neurosciences, Québec, QC, Canada.

Vaccaro, K., Osana, H. P., **Lafay, A.**, & Foster, K. (November 2019). *A theoretical model for the design of equal sharing problems*. Poster presented at North American Chapter of the International Group for the Psychology of Mathematics Education, St. Louis, Missouri, USA.

Whittaker, R., Xu, C., Douglas, H., Osana, H. P., Turner, J., **Lafay, A.**, Skwarchuk, S.-L., Moloney, E. M., Merkley, R., & LeFebvre, J.-A., (August 2019). *Exploring Symbolic Math Processing in Immersion and Non-Immersion Students*. Poster presented at The Cognitive Science Societies Conference, Montreal, Canada.

**Lafay, A.**, Osana, H. P., & Hadjadj, O. (June 2019). *The effects of detachability and countability of manipulatives on second-graders' number knowledge*. Symposium Unpacking Manipulatives: Recommendations for the Mathematics Classroom. Presented at The 2<sup>nd</sup> Mathematical Cognition and Learning Society Conference, Ottawa, Canada.

Xu, C.\*, **Lafay, A.\***, Osana, H. P., Skwarchuk, S.-L., & LeFebvre, J.-A. (June 2019). *The role of mathematics-specific vocabulary for arithmetic fluency and word-problem solving for children learning mathematics in their first or second language*. Symposium Role of language in early arithmetic and reading. Presented at The 2<sup>nd</sup> Mathematical Cognition and Learning Society Conference, Ottawa, Canada. \*co-first authors

Marcon, L., Osana, H. P., Helloin, M.-C., & **Lafay, A.** (June 2019). *Effect of a number line intervention with the software DéCaLigne on number accuracy and arithmetic in two children with mathematics learning disabilities*. Poster presented at The 2<sup>nd</sup> Mathematical Cognition and Learning Society Conference, Ottawa, Canada.

Whittaker, R., Xu, C., Douglas, H., Osana, H. P., Turner, J., **Lafay, A.**, Skwarchuk, S.-L., Moloney, E. M., Merkley, R., & LeFebvre, J.-A., (June 2019). *The Role of Language in Math Problem Solving for Immersion and Non-Immersion Students*. Poster presented at the 1<sup>st</sup> Mathematical Cognition and Learning Society Conference, Ottawa, Canada.

**Lafay, A.** (December 2018). *Le dépistage du trouble d'apprentissage en Mathématiques: Présentation de deux outils*. Presented at XVIII<sup>ème</sup> rencontres de l'Unadréo. Paris, France.

**Lafay, A.**, Osana, H. P., Lemieux, S., Valat, M. (November 2018). *Linguistic, Quantitative, and Executive Predictors of Learning Mathematics in a Second Language*. Poster presented Annual conference of ASHA, Boston, USA.

Osana, H. P., **Lafay, A.**, & Blondin, A. (October 2018). Poster, PicPVT, une tâche d'évaluation de la compréhension de la représentation d'éléments des symboles dans les nombres : validation chez des enfants de 1<sup>e</sup> année de primaire. Poster presented at Colloque Espace Mathématique Francophone, Paris.

**Lafay, A.**, Brault, M., Mura, C., & Osana, H. P. (May 2018). *Production de problèmes à énoncé verbal à partir d'une opération et d'une illustration chez de jeunes enfants de 2e année de primaire*. Poster presented at the Colloque annuel du Groupe de didactique des mathématiques du Québec (GDM), Drummondville, Canada.

**Lafay, A.**, Osana, H. P., & Valat, M. (April 2018). *Effectiveness of manipulatives in the treatment of mathematics learning disabilities: A systematic review*. Poster presented at the 1<sup>st</sup> Mathematical Cognition and Learning Society Conference. Oxford, England.

**Lafay, A.**, & Cattini, J. (June 2017). *Psychometric Analysis of mathematics assessment tools used with French-speaking children*. Poster presented at the conference of the Canadian Society for Brain, Behavior, and Cognitive Science. Regina, Canada.

**Lafay, A.**, Maquelle, A., & Helloin, M.-C. (November 2016). *Validation d'épreuves de résolution de problèmes au sein d'une batterie informatisée (Examath 8-15) d'évaluation des troubles de la cognition mathématique*. Presented at Congrès International de l'École d'Orthophonie et d'Audiologie de l'Université de Montréal. Montreal, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (June 2016). *Impairment in Arabic- and spoken- number processing by children with developmental dyscalculia*. Presented at the conference of the Canadian Society for Brain, Behaviour, and Cognitive Science. Ottawa, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (June 2015). *Déficits cognitifs numériques impliqués dans la dyscalculie développementale: Résultats préliminaires*. Poster presented at Journées Annuelles de l'Ordre des Orthophonistes et Audiologistes du Québec. Montreal, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (June 2015). *Non-symbolic number processing in developmental dyscalculia: Impairment of production but not comprehension*. Presented at the conference of the Canadian Society for Brain, Behaviour, and Cognitive Science. Ottawa, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (May 2015). *Déficits cognitifs numériques impliqués dans la dyscalculie développementale: Résultats préliminaires*. Poster presented at 1<sup>er</sup> Congrès Québécois de Recherche en Adaptation-réadaptation, REPAR. Boucherville, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (November 2014). *Déficits cognitifs numériques impliqués dans la dyscalculie développementale: Résultats préliminaires*. Poster presented at 8<sup>ème</sup> Journée à la Recherche en Neurosciences et Santé Mentale de l'Université Laval. Québec, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (September 2013). *Specific numerical impairment involved in developmental dyscalculia: number sense deficit and/or deficit of access to numerical representations?* Presented at the Fourth all-European dyslexia conference, EDA. Växjö, Suède.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (September 2013). *Specific numerical impairment involved in developmental dyscalculia: number sense deficit and/or deficit of access to numerical representations?* Poster presented at the Fourth all-European dyslexia conference, EDA. Växjö, Suède.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (June 2013). *Specific numerical impairment involved in developmental dyscalculia: number sense deficit and/or deficit of access to numerical representations?* Poster presented at the Symposium on Brain plasticity, Learning and Education de l'University of Western Ontario. London, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (May 2013). *Déficit cognitif numérique impliqué dans la dyscalculie développementale : déficit du sens du nombre et/ou déficit d'accès au sens du nombre ?* Poster presented at the Journée annuelle de médecine de l'université Laval. Québec, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (March 2013). *Dyscalculie, définition, difficultés, évaluation* Presented (invited) at the 38<sup>ème</sup> congrès de l'AQETA, Montréal, Canada.

**Lafay, A.**, Kervévan, C.-L., & Fayol, M. (December 2012). *Résolution non verbale d'additions et soustractions par des jeunes enfants entendants, sourds oralistes et sourds signants*. Poster presented at the Journée scientifique du CRIUMSQ. Québec, Canada.

**Lafay, A.**, Kervévan, C.-L., & Fayol, M. (May 2012). *Résolution non verbale d'additions et soustractions par des jeunes enfants entendants, sourds oralistes et sourds signants*. Poster presented at the Journée annuelle de médecine de l'université Laval. Québec, Canada.

**Lafay, A.**, Kervévan, C.-L., & Fayol, M. (May 2012). *Résolution non verbale d'additions et soustractions par des jeunes enfants entendants, sourds oralistes et sourds signants*. Poster presented at the Journée scientifique du REPAR. Montréal, Canada.

### **Invited Talks**

**Lafay, A.** (October 2020). *Manipuler des objets permet-il toujours de développer la pensée mathématique de l'enfant ?* To be presented (invited) at the Annual conference of the Association Des Orthopédagogues du Québec, Colloque 2020, Laval, QC, Canada.

**Lafay, A.** (April 2020). *Le trouble d'apprentissage en mathématiques*. To be presented (invited) at the Annual conference of the Association québécoise des orthophonistes et audiologistes (AQOA), Montreal, QC, Canada.

**Lafay, A.** (October 2019). *Le trouble d'apprentissage en mathématiques : origine cognitive, évaluation et intervention*. Presented (invited) at Les Conférences Beaux-midis. Université de Montréal, Montreal, QC, Canada.

**Lafay, A.** (April 2018). *Le trouble d'apprentissage en mathématiques*. Presented (invited) at Les Conférences Beaux-midis. Université de Montréal, Montreal, QC, Canada.

**Lafay, A.** (March 2018). *Les troubles de la cognition mathématique*. Presented (invited) at Colloque de l'Institut des Troubles des Apprentissages. Montreal, QC, Canada.

**Lafay, A.** (November 2017). *Le trouble d'apprentissage en mathématiques*. Presented (invited) at Colloque des parents de l'Institut des Troubles des Apprentissages. Quebec City, QC, Canada.

**Lafay, A.** (4 novembre 2017). *Le trouble d'apprentissage en mathématiques*. Presented (invited) at Colloque des parents par l'Institut des Troubles des Apprentissages. Montreal, QC, Canada.

**Lafay, A.** (July 2017). *Les troubles de la cognition mathématique*. Presented (invited) at Colloque Itinéraires. Nice, France.

**Lafay, A.** (May 2017). *La dyscalculie, implications quotidiennes et scolaires*. Presented (invited) for the Syndicat des Orthophonistes de Polynésie Française. Papeete, French Polynesia, France.

**Lafay, A.** (February 2017). *La dyscalculie*. Presented (invited) for the Association Parlons Apprentissage, Editions Passe-temps. Quebec City, QC, Canada.

**Lafay, A.** (June 2016). *La dyscalculie développementale: Définitions, difficultés, évaluation*. Presented (invited) at the Colloque CITA. Moncton, NB, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (January 2015). *Déficits cognitifs numériques impliqués dans la dyscalculie développementale: Résultats préliminaires*. Presented (invited) at the Laboratoire de Cognition numérique, M.-P. Noël. Louvain-la-Neuve, Belgique.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (October 2014). *La dyscalculie développementale: Apports théoriques pour quelle évaluation et quelles pistes rééducatives?* Presented (invited) at the Colloque de L'Association des Orthopédagogues du Québec, Colloque 2014. Sherbrooke, QC, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (June 2014). *La dyscalculie développementale: Apports théoriques pour quelle évaluation et quelles pistes rééducatives?* Presented by videoconference (invited) for the Association des Orthophonistes de Nouvelle-Calédonie, France.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (January 2014). *La dyscalculie développementale*. Présentation (invitée) au Programme d'Orthophonie, Université Laval. Quebec City, QC, Canada.

**Lafay, A.**, St-Pierre, M.-C., & Macoir, J. (December 2013). *La dyscalculie développementale: Apports théoriques pour quelle évaluation et quelles pistes rééducatives?* Presented (invited) for the Association des Anciens Étudiants de Lyon 1 ALUMNI. Lyon, France.

### **Dissemination and Transfer in the Public Domain**

**Lafay, A.**, & Helloin, M.-C. (Juin 2020). *Mon enfant n'arrive pas à lire et écrire des nombres*. Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

**Lafay, A.**, & Helloin, M.-C. (Mai 2020). *Mon enfant ne comprend pas les mots de vocabulaire mathématique*. Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

**Lafay, A.** (Mai 2020). *Mon enfant écrit les chiffres en miroir*. Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

**Lafay, A.** & Munteanu, M. (Mai 2019). *La dyscalculie*, slam created by LEM in collaboration with Anne Lafay Réactions Créatives, Montréal. [in youtube]

Provost-Larocque, K. & **Lafay, A.** (Septembre 2019). *Stimuler l'intérêt spontané des enfants pour les nombres dans la vie de tous les jours*. Blog Parlons apprentissage.

**Lafay, A.** (Septembre 2019). *La dyscalculie*. Fiche informative pour l'Association Québécoise des orthophonistes et audiologistes, Canada.

**Lafay, A.**, & Helloin, M.-C. (Septembre 2019). *Mon enfant ne connaît pas les tables de multiplication*. Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

**Lafay, A.**, & Helloin, M.-C. (Septembre 2019). *Mon enfant compte sur ses doigts*. Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

**Lafay, A.**, & Helloin, M.-C. (Septembre 2019). *Mon enfant ne connaît pas la comptine des nombres*. Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

Helloin, M.-C. & **Lafay, A.** (Septembre 2019). *Les difficultés de résolution des problèmes mathématiques*. Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

Helloin, M.-C. & **Lafay, A.** (Septembre 2019). *La dyscalculie, c'est quoi?* Allo Ortho (Plateforme de Prévention et Soins en Orthophonie).

Vaccaro, K., & **Lafay, A.** (Février 2019). *Concret ou abstrait? La méthode d'effacement progressif de la concrétude (méthode EPC) suggère l'union des deux pour un apprentissage efficace des concepts mathématiques*. Blog Parlons Apprentissage.

**Lafay, A.** (Mai 2018). *La dyscalculie, c'est quoi ?* Événement de Vulgarisation Pint of Science, Montreal, Canada.

**Lafay, A.**, & Deleuze, A. (Mai 2018). *Stratégies d'enseignement efficaces favorisant les apprentissages en lecture, écriture et mathématiques auprès des élèves en difficulté de niveau élémentaire*. Blog Parlons Apprentissage.

Vaccaro, K., & **Lafay, A.** (Avril 2018). *L'enseignement du concept d'égalité aux enfants*. Blog Parlons Apprentissage.

**Lafay, A.** (Février 2018). *Efficacité des interventions en résolution de problèmes chez des enfants ayant un trouble d'apprentissage en mathématiques*. Blog Parlons Apprentissage.

**Lafay, A.** (Janvier 2018). *TDAH et difficultés mathématiques*. Blog Parlons Apprentissage.

**Lafay, A.** (Décembre 2017). *La représentation est-elle une pratique basée sur les données probantes dans l'aide à l'apprentissage chez les enfants présentant des difficultés en mathématiques ?* Blog Parlons Apprentissage.



**Lafay, A.** (Février 2017). *Pourquoi la manipulation d'objets peut-elle aider à l'apprentissage de concepts mathématiques ?* Blog Parlons Apprentissage.

**Lafay, A.** (Avril 2017). *Mémoire de travail et capacités mathématiques.* Blog Parlons Apprentissage.

**Lafay, A.** (Mars 2017). *Les difficultés de langage : un défi supplémentaire pour les mathématiques : l'exemple des enfants sourds.* Blog Parlons Apprentissage.

**Lafay, A.** (Février 2017). *Les interventions soutenant la réussite mathématique.* Blog Parlons apprentissage. Blog Parlons Apprentissage.

**Lafay, A.** (Juin 2016). *Compréhension des fractions et des nombres décimaux : quelles interventions privilégier?* Blog Parlons Apprentissage.

**Lafay, A.** (Juin 2016). *Pourquoi l'apprentissage des fractions et des nombres décimaux est-il si difficile ?* Blog Parlons Apprentissage.

**Lafay, A.** (Mars 2016). *Une aire cérébrale pour reconnaître les nombres.* Blog Parlons Apprentissage.

**Lafay, A.** (Février 2016). *La résolution de problèmes mathématiques.* Blog Parlons Apprentissage.

**Lafay, A.** (Décembre 2015). *Deux modèles de traitement du nombre qui font consensus.* Blog Parlons Apprentissage.

**Lafay, A.** (Novembre 2015). *Qu'est-ce que la dyscalculie ?* Blog Parlons Apprentissage.

**Lafay, A.** (2014). Movie La dyscalculie. Finalist to the competition Cogito, Canal Savoir, AELIES, Laval University.

**Lafay A.** (Janvier 2013). *Et si la maladie de Parkinson engendrait aussi des troubles du langage ?* Impact Campus, Laval University.

**Lafay A.** (Novembre 2013). *Thèse en bref : avoir le verbe facile.* Impact Campus, Laval University.

+ Creator and moderator of the group Dyscalculie-Infos on Facebook® (since september 2012, 10500 members).

### **Research-Creation Development**

**Lafay, A., & Helloin, M.C.** (in prep). Software *Examath 5-8*. HappyNeuronPro.

**Lafay, A., & Helloin, M.C.** (2019). Software *SUBéCAL*. HappyNeuronPro.

**Lafay, A., & Helloin, M.C.** (2018). Software *DéCaLigne*. HappyNeuronPro.

**Lafay, A., & Helloin, M.C.** (2016). Software *Examath 8-15*. HappyNeuronPro.

**Lafay, A.** (2014). *Mathis n'aime pas les maths.* Editions Dominique & Compagnie.

**Lafay, A.** (2014). Jeu *Plus petit ou plus grand 1*. Éditions Passe-Temps.

**Lafay, A.** (2014). Jeu *Plus petit ou plus grand 2*. Éditions Passe-Temps.

**Lafay, A.** (2013). Jeu *La Magie des nombres*. Éditions Passe-Temps.

**Lafay, A.** (2013). Jeu *123 En avant !* Éditions Passe-Temps.

**Lafay, A.** (2013). Jeu *Résolu Courons*. Éditions Passe-Temps.

**Lafay, A.** (2013). Jeu *Résolu Buvons*. Éditions Passe-Temps.

**Lafay, A.** (2013). Jeu *Résolu Respirons*. Éditions Passe-Temps.

**Lafay, A.** (2013). *Jeu Résolu Partons*. Éditions Passe-Temps.

**Lafay, A.** (2013). *Jeu Résolu Cultivons*. Éditions Passe-Temps.

### **Current collaborations**

Helena P. Osana, professor in education, Concordia University, Montreal, QC, Canada

Projects: Effect of manipulatives in math development in children; training of kindergartner teachers in mathematics ; cross-cultural studies in mathematical development (LLaMA project)

Joël Macoir, professor in speech-and-language pathology, Laval University, Quebec City, QC, Canada

Projects: Elaboration of an assessment tool of mathematical abilities in adults

Safi Dima, professor in speech-and-language pathology, Université-du-Québec-À-Trois-Rivière, Trois-Rivière, QC, Canada

Projects: Elaboration of French-Quebec norms for mathematical tests in children

Daniel Ansari, professor in psychology and cognitive sciences, Western University, London, ON, Canada

Projects: cross-cultural project on the Numeracy Screener test

Jo-Anne LeFevre, professor in psychology, Carleton University, Ottawa, ON, Canada

Projects: cross-cultural studies in mathematical development, home-numeracy environment (LLAMA project), cross-cultural project on the Numeracy Screener test

Chang Xu : postdoctoral researcher, Carleton University, Ottawa, ON, Canada

Projects: cross-cultural studies in mathematical development, home-numeracy environment (LLAMA project)

Sheri Skwarchuk : professor in education, University of Winnipeg, MA, Canada

Projects: cross-cultural studies in mathematical development, home-numeracy environment (LLAMA project)

Erin Maloney : professor in psychology, University of Ottawa, Ottawa, ON, Canada

Projects: cross-cultural studies in mathematical development, home-numeracy environment (LLAMA project)

Simms Victoria : professor in psychology, Ulster University, Angleterre

Projects: cross-cultural studies in mathematical development, home-numeracy environment (LLAMA project)

Judith Wylie : professor in psychology, Queen's University, Belfast, Irlande

Projects: cross-cultural studies in mathematical development, home-numeracy environment (LLAMA project)

Susan Ebbels : researcher, Research Institute of The Moor House School & College, London, England

Projet : Developmental Language Disorders and mathematics (beginning of the project)

Julie Cattini : speech-and-language pathologist, Luxembourg

Projets : Efficacy of math intervention in children with mathematics learning disabilities

Marie-Christel Helloin : professor in speech-and-language pathologist and lecturer, Université de Rouen

Projets : conception of assessment and intervention tools in mathematics

## **6. Apparition in medias**

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2020 Qu'est-ce que la dyscalculie? *Moteur de recherche, Radio-Canada.*

2020 Member of "ExpertWomen"

2019 Percer les mystères de la dyscalculie. *Québec Science.*

2019 Deux chercheuses de Concordia décrochent une bourse postdoctorale Banting. Site web de l'université Concordia.

- 2016 Podcast Unadréo Épisode 4 Anne Lafay
- 2015 Comment leur faire aimer... les maths. *Enfants Québec*.
- 2014 Le vertige des chiffres. *Québec Science*.
- 2013 Facebook : les orthophonistes likent, *OrthoMagazine*.
- 2013 Dans la recherche, j'apprécie d'apprendre sans cesse, *Le Progrès*.

## 7. Services

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### Supervision of Bachelor students

- 2019-2020 Co-supervision of Caitlin Macevicius for her Research honours thesis  
Department of Psychology, Concordia University, Montreal
- 2019-2020 Co-supervision of Arielle Angbole for her Research specialization thesis  
Department of Psychology, Concordia University, Montreal
- 2017-2018 Co-supervision of Sophie Lemieux for her Research honours thesis  
Department of Psychology, Concordia University, Montreal

### Supervision of Master's students

- 2020-2022 Supervision of Aurélie Marcelot for her thesis  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2019-2021 Co-supervision of Yasmine Kheloufi for her thesis  
Department of Speech-Language Pathology, Université du Québec à Trois-Rivières
- 2019-2021 Co-supervision of Mai-Chi Nguyen-Huy for her thesis  
Department of Speech-Language Pathology, Université du Québec à Trois-Rivières
- 2020-2021 Co-supervision of Raya Haddad for her thesis  
Department of Speech-Language Pathology, Université St-Joseph, Beyrouth
- 2019-2021 Co-supervision of Elisabeth Morin for her thesis  
Department of Speech-Language Pathology, Université de Rouen,
- 2019-2021 Co-supervision of Quitterie Lautier for her thesis  
Department of Speech-Language Pathology, Université de Rouen
- 2019-2021 Supervision of Elodie Betin for her thesis  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2019-2020 Co-supervision of Marjorie Dionne for her thesis  
Department of Speech-Language Pathology, Université Laval, Québec
- 2019-2020 Co-supervision of Julie Bilodeau for her thesis  
Department of Speech-Language Pathology, Université Laval, Québec
- 2018-2020 Supervision of Soline Raimbault for her thesis  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2017-2018 Co-supervision of Magali Cassar for her thesis  
Department of Speech-Language Pathology, Université de Caen Basse Normandie, Caen

- 2016-2018 Supervision of Laetitia Marcon for her thesis  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2016-2017 Co-supervision of Sarah Echerbault for her thesis  
Department of Speech-Language Pathology, Université de Caen Basse Normandie, Caen
- 2015-2017 Supervision of Julie Guilan for her thesis  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2015-2017 Supervision of Cécile Colombies for her thesis  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2015-2016 Co-supervision of Anaïs Morisse for her thesis  
Department of Speech-Language Pathology, Université de Caen Basse Normandie, Caen
- 2015-2016 Co-supervision of Alicia Maquelle for her thesis  
Department of Speech-Language Pathology, Université de Caen Basse Normandie, Caen
- 2014-2015 Co-supervision of Stéphanie Poirier for her thesis  
Department of Speech-Language Pathology, Université Laval, Québec
- 2013-2015 Supervision of Émilie Julien and Ève Marcon for their thesis  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon

#### **Supervision of students for a research internship (bachelor or master)**

- Juin 2020 Supervision of Aurélie Marcelot [canceled because of the covid-19]  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- Juin 2020 Supervision of Marie Darondel [canceled because of the covid-19]  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- Octobre 2019 Supervision of Maëva Naulleau  
Department of Speech-Language Pathology, Université de Montpellier, France
- Octobre 2019 Supervision of Candice Collet  
Department of Speech-Language Pathology, Université de Montpellier, France
- Mai 2019 Supervision of Marie Benêteau  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- Mai 2019 Supervision of Maï-Ly Plas  
Department of Speech-Language Pathology, Université Gabriel Lacroix, Lille, France
- Janvier 2019 Supervision of Olivia Hadjadj  
Department of Speech-Language Pathology, Université de Strasbourg, France
- Automne 2018 Supervision of Morgane Didier  
Department of Speech-Language Pathology, Université de Montpellier, France
- Mai 2018 Supervision of Marie Brault  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- Mai 2018 Supervision of Caroline Mura  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon

#### **Supervision of students for a clinical internship**

- 2011 Supervision of Cécile Chancelier  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon

**Supervision of speech-language pathologists (clinical professional development)**

- 2019 Supervision of Anne-Laure Gilles for her professional development on math learning disabilities
- 2018 Supervision of Marie-Ève Arcand for her professional development on math learning disabilities
- 2017 Supervision of Godelieve Brion-Richert for her professional development on math learning disabilities
- 2015 Supervision of Camille Thériault for her professional development on math learning disabilities
- 2015 Supervision of Geneviève Rainville for her professional development on math learning disabilities

**Member of Master's thesis comitee**

- 2020 Comitee member of Mathilde Quentel  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2020 Comitee member of the thesis project of Solène Batailler  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2020 Comitee member of the thesis project of Julia Déléris  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2020 Comitee member of the literature review of Solène Batailler  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon
- 2020 Comitee member of the literature review of Julia Déléris  
Department of Speech-Language Pathology, Université Claude Bernard Lyon 1, Lyon

**Member of PhD thesis comitee**

- 2020 Comitee member of the thesis of Sophie Gangloff  
Department of Psychology, Université de Montréal

**Reviewer**

*Acta Psychologica*  
*Eurasia Journal of Mathematics, Science and Technology Education*  
*Glossa*  
*Neuroéducation*  
*Revue Canadienne de Psychologie Expérimentale*  
*Psychologie canadienne / Canadian Psychology*  
*International Journal of Developmental Disabilities*

**Academic services**

- 2020 Organizer of the e-conference: The Current Evidence Base for School-Age Children with Developmental Language Disorder (S. Ebbels, 2020 November)
- 2020 Reviewer for the conference 2020 PME-NA (North American Chapter of the International Group for the Psychology of Mathematics Education, Mazatlán, Mexico)
- 2019 Reviewer for the conference 2019 PME-NA (North American Chapter of the International Group for the Psychology of Mathematics Education, St-Louis, Missouri)
- 2019 Reviewer for the conference 2020 of the Institut TA (Institut des Troubles des Apprentissages, Montreal)
- 2019 Creator and Moderator of a group of working on « Mathematics and Speech-Language Pathology in Quebec »

- 2018-2019 Member of the scientific committee of the Annual Postdoctoral Research Day Working (Ecole Technique Supérieure, Montréal)
- 2018-2020 Member of the American Speech-Language-Hearing Association (ASHA)
- 2018-2020 Member of the Mathematical Cognition and Learning Society (MCLS)
- 2017-2021 Representative of Concordia University for the Annual Congress of the CSBBCS

## 8. Work Experiences

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### Research

- 2019-2021 Banting Postdoctoral Fellow  
With Helen P. Osana, Concordia University, Montreal
- 2017-2019 Horizon Postdoctoral Fellow  
With Helen P. Osana, Concordia University, Montreal
- 2016 Lab manager  
Intervention in morphology with dyslexic students at university  
With Maximiliano Wilson, Laval University, Quebec City
- 2015 Lab manager  
Collaborative Response-to-Intervention in reading inferences  
With Marie-Catherine St-Pierre, Laval University, Quebec City

### Speech-Language Pathology

- 2017-2020 Speech-Language Pathologist  
Practice at home of clients. Partial Time. Montreal
- 2016-2017 Speech-Language Pathologist  
Private Clinic Haute ville Quebec City
- 2009-2011 Speech-Language Pathologist  
Private Clinic, Villars, France
- 2008-2009 Speech-Language Pathologist  
Private Clinic, Le Port, Reunion Island, France

### Trainee for non-academic professionals

- In prep Scientist designer of a e-learning training (for speech-language pathologists)  
*Difficulties in Word-problem solving: Evaluation and analysis* in 15 video chapters  
Website Timélia
- 2020 Scientist designer of a e-learning training (for speech-language pathologists)  
*Math learning disabilities: Evaluation and diagnosis* in 15 video chapters  
Website Timélia
- 2020 E-trainer (for speech-language pathologists)  
*Math learning disabilities: intervention* for 4 half-days  
Given 2 times
- 2019-2020 E-trainer (for speech-language pathologists)  
*Math learning disabilities: intervention* for 2 days  
Given 6 times

- 2018-2019 E-trainer (for speech-language pathologists)  
*Math learning disabilities: assessment and diagnosis* for 2 days  
Given 6 times
- 2017-2019 E-trainer (for speech-language pathologists)  
*Word-problem solving: from theory to practice* for 2 days  
Given 10 times
- 2017-2018 E-trainer (for speech-language pathologists)  
*Examath 8-15: a tool for the math assessment* for 2 days  
Given 3 times
- 2017 E-trainer (for speech-language pathologists, teachers, teachers for children with special needs)  
*Math learning disabilities: adaptations at school* for 1 day  
Given 1 time
- 2014-2017 E-trainer (for speech-language pathologists)  
*Math learning disabilities: from theory to practice* for 2 days  
Given 16 times
- 2017 E-trainer (for speech-language pathologists, psychologists, teachers, people responsible in Ministère de l'Éducation et des Loisirs, Québec)  
*Math and language en* for 2 days  
Given 1 time

### **Teacher / Lecturer at University**

- 2020-2021 Lecturer  
Course unit: *Math learning disabilities: definition, evaluation, and intervention*  
9 hours (lectures)  
Département of speech-language pathology, Université de Montréal
- 2019-2020 Lecturer  
Course unit: *Math cognition (Intervention)*  
30 hours (lectures and labs)  
Département of speech-language pathology, Université St-Joseph, Beyrouth
- 2016-2018 Lecturer  
Course: *Populations with Special Needs*  
6 hours (lectures)  
Département of speech-language pathology, Université Laval, Quebec City
- 2012-2021 Lecturer  
Course unit: *Math cognition (Theoretical models, assessment, intervention)*  
200 hours (lectures and labs)  
Département of speech-language pathology, Université Claude Bernard Lyon 1, Lyon
- 2016-2018 Teaching assistant  
Course: *Research methods*  
3 hours (labs)  
Département of speech-language pathology, Université Laval, Quebec City

## **9. Professional Development**

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### **Transversal skills**

- 20-21 Inter-university diploma "Gender studies" (Université de Rennes, France, online)

- 2020 Interpreting Linear Regression Coefficients: A Walk Through Output (Analysis factor)
- 2020 Get Good at Statistics... Without Becoming a Statistician (Analysis factor)
- 2020 MOOC: Psychologists and speech-language pathologists: the EBP for the patient (Université de Liège, Fun MOOC)
- 2020 Webinar: The telepractice (Ordre des Orthophonistes et Audiologistes du Québec)
- 2020 MOOC: The psychological development of children (Université de Genève, Coursera)
- 2019 MOOC: Copyright and royalties (Fun MOOC)
- 2019 MOOC: Media (Media Relations, Canadian Institutes of Health Research)
- 2019 MOOC: Ethics in research (Fun MOOC)
- 2019 MOOC: Introduction to the statistics with R (Fun MOOC)
- 2018 Summer school: Knowledge Transfer (Unité de soutien-SRAP du Québec, REPAR, Montréal)
- 2017 Workshop: The Simplicity Behind Complexity: Mediation and Moderation Analysis (Université Concordia)
- 2017 MOOC: Teach at university (Fun MOOC)
- 2017 MOOC: Learn and make learn (Université de Mons, Belgique)
- 2017 Workshop: Litterature Review (Department of Journalism and communication, Concordia University)
- 2017 MOOC: Calling Bullshit: Data Reasoning for the Digital Age (University of Washington, Seattle)
- 2017 MOOC: Integrate the evidence-based data in the practice (Consortium Nationale de Formation en Santé, Université d'Ottawa)
- 2017 Training: Analysis and writing of a scientific paper (Séminaire du laboratoire Unadréo de Recherche Clinique en Orthophonie, LURCO)
- 2017 MOOC: Learn and Teach with cognitive sciences (Équipe Sciences cognitives)
- 2017 MOOC: Thinking Critically: Interpreting Randomized Clinical Trials (Stanford University)
- 2017 MOOC: Explore supervision models (Consortium Nationale de Formation en Santé, Université d'Ottawa)
- 2017 MOOC: Learning How to Learn: Powerful mental tools to help you master tough subjects (Université de Californie à San Diego)
- 2016 Summer school: Transverse professional skills (Université Laval, Québec)  
Intellectual Property  
Approaches and methods of teaching at university  
Introduction to mindfulness
- 2016 Webinar: Contractual strategy: exploiting your intangible assets (Agence pour la Protection des Programmes)
- 2015 MOOC: Health system and Education system in Quebec (Ordre des Orthophonistes et Audiologistes du Québec)
- 2015 MOOC: Speech-Language Pathology practice in Quebec (Ordre des Orthophonistes et Audiologistes du Québec)
- 2014 Workshop: Introduction to the programming with E-prime (CINQ, Québec)

**Oral language and Communication in children**



- 2020 E-training: Current Evidence Base for School-Age Children with Developmental Language Disorder (S. Ebbels)
- 2020 E-conférence L'influence du langage et des symboles sur la perception et sur la cognition (S. Dehaene, Collège de France)
- 2020 Webinar: How to diagnose a developmental language disorder? (F. Wavreille)
- 2020 Webinar: Terminology about developmental language disorder (F. Wavreille)
- 2020 E-training: Introduction to Parental Partnership (J. Périchon and S. Gonnot)
- 2020 Training: Developmental language disorder (Ordre des Orthophonistes et Audiologistes du Québec)
- 2016 Course: Augmented and alternative communication (Laval University, Quebec City)
- 2015 Training: Understanding of inferences in children (Laval University, Quebec City)
- 2012 Training: Sign Language in Quebec, level 1 (Association Signes d'Espoir, Quebec City)
- 2012 International conference: Ideas to develop language skills with children (J. Bolduc, Quebec City)
- 2011 Training: Intervention on language disorders and reading disorders (Bobillier-Chaumont, Reunion Island)
- 2008 Training: Intervention with children with autism (SORR, Reunion Island)
- 2007 Training: Intervention with young deaf children and their family (Pluriel Formation, France)
- 2006 Training: French cued speech (Association ALPC, France)
- 2006 Training: Sign Language in France, level 2 (Association Visuel LSF, France)

### **Reading and writing in children**

- 2017 Training: Intervention with dyslexic children (A. Deleuze)
- 2017 Webinar: Neuromyths to better teach (S. Masson, Université du Québec à Montréal)
- 2016 Conference: Morphological knowledge of children (R. Berthiaume) (Laval University)
- 2016 Conference: Assessment in reading (CITA, Moncton, NB, Canada)
- 2013 Conference: Learning of orthographical vocabulary (M. Fayol, Laval University)

### **Language and communication in adult**

- 2017 MOOC Concussions (Laval University)
- 2015 Annual conference of the Ordre des Orthophonistes et Audiologistes du Québec (Montreal, Canada)
  - Conference: A new tool to assess acquired deficit in language (P. Ferré and A. Deleuze)
  - Conference: New technologies to intervention in anomia (J. Macoir, Laval University)
- 2015 Conference: Aging and verbal communication, from behaviour to physiological and neurological mechanisms (Dre Pascale Tremblay, Laval University)
- 2015 Conference: Rehabilitation of Anomia in Chronic Aphasia: Updated Evidence (Catherine Dubé, Laval University)

### **Speech, Voice, Dysphagia**

- 2016 Course: Stuttering (Laval University)

- 2016 MOOC: Dysphagia (Ordre des Orthophonistes et Audiologistes du Québec)
- 2015 MOOC: Neuromotor deficit of speech in adults (Ordre des Orthophonistes et Audiologistes du Québec)
- 2015 MOOC: Neuromotor deficit of speech in children (Ordre des Orthophonistes et Audiologistes du Québec)
- 2015 Course: Voice deficit (Laval University)

### **Mathemacal cognition**

- 2020 Webinar: Problem solving with students with learning difficulties: from arithmetic to algebra (Karine Alarie et Sophie Montpetit, TA @ l'école)
- 2019 The 2<sup>nd</sup> Mathematical Cognition and Learning Society Conference (Carleton University, Ottawa)
- 2018 The 1<sup>st</sup> Mathematical Cognition and Learning Society Conference (University of Oxford)
- 2017 Workshop: Connecting Cognition, Affect, and Academic Skills (Carleton University, Ottawa)  
Relating Kindergarteners' Academic Performance to their Teacher's Early Development Instrument (EDI) Ratings
- 2017 Workshops in Numerical Cognition (Institute of Cognitive Science, University of Regina)
- 2017 Canadian Society for Brain, Behaviour, and Cognitive Science (University of Regina)
- 2017 Conférence: Learn math in kindergarten (R. Brissiaud)
- 2016 Workshops in Numerical Cognition (Institute of Cognitive Science, Carleton University, Ottawa)
- 2016 Canadian Society for Brain, Behaviour, and Cognitive Science (Carleton University, Ottawa, Canada)
- 2015 Workshops in Numerical Cognition (Institute of Cognitive Science, Carleton University, Ottawa)
- 2015 Canadian Society for Brain, Behaviour, and Cognitive Science (Carleton University, Ottawa)
- 2014 Conference: The teaching of fractions revisited: the sense of fraction and mental image (M. Lyons) (Association Des Orthopédagogues du Québec, Colloque 2014, Sherbrooke, QC, Canada)
- 2014 Training: Intervention in math cognition (A. Ménissier)
  - Day 1: Introduction to number and numeration concept, counting and enumeration in children
  - Day 2: Acquisition of calculation
  - Day 3: Logical situations
  - Day 4: Word-problem solving
  - Day 5: Assessment of math learning disabilities
- 2013 Conference: I have a learning dysability, how you help me? (38<sup>ème</sup> congrès de l'AQETA , Montreal)
  - Learning math (M. Fayol)
  - When difficulties can help learning math, the example of fraction (C. Picard)
  - Difficulties in word-problem solving (M. Fayol)
- 2012 Conference: The multiplication facts (S. Barrette, Learning in music Conference)
- 2012 Course: Didactic of mathematics in primary school (C. Bordeleau, Laval University)
- 2012 MOOC: Keymaths 3 (Pearson)
- 2011 Training: Intervention with children with math learning disabilities (Métral Formation)
- 2011 Training: Assessment of math learning disabilities in adolescent (Métral Formation)

2009 Training: Assessment of math learning disabilities in children (Métral Formation)