

Thank you for considering my application for the Chris Spencer Foundation Professorship in Dyslexia. In describing my qualifications and vision for the Professorship, I will emphasize three aspects of the mandate for the position below.

- Pursue a research program in the field of learning disabilities focusing on dyslexia and related reading and writing disabilities, through securing grant support and recruitment of graduate students.

My research program is focused in two main areas that are both related to learning disabilities. The first area concerns the development and application of curriculum-based measurement (CBM) of academic skills. CBMs are brief, repeatable assessments of academic skills that can be used to (a) screen students at risk of developing dyslexia and related learning difficulties, (b) inform intervention development to address these difficulties, and (c) monitor student responsiveness to instruction and intervention. CBM and similar measures are critical elements of contemporary education models such as response-to-intervention that aim to more effectively serve students with or who are at risk for developing dyslexia and related disabilities.

My work related to CBM is primarily conducted in collaboration with researchers in the United States. I currently have 10 published, peer-reviewed journal articles that have focused on the technical adequacy of decisions made with CBM, with several other manuscripts on this topic under review and in preparation. I am planning to submit a grant as co-Principal Investigator (Principal Investigator: Milena Keller-Margulis at the University of Houston) to the U.S. Department of Education in August that will explore the development of alternative procedures to elicit student writing samples in written expression CBM (WE-CBM) as well as the technical adequacy of WE-CBM to formatively assess gains in writing skill for students with writing difficulties who are participating in intensive writing intervention. Thus far, I have not supervised student research projects at UBC related to CBM, but I am open to that possibility.

My second research area is theory-based evaluation of academic interventions, particularly in the area of reading. This focus has emerged from a merger of my measurement-related work in CBM combined with graduate student research projects on academic interventions. I have successfully supervised three completed MA thesis projects that have evaluated reading or writing interventions, and I am currently supervising four MA thesis projects and one PhD dissertation that will evaluate individual reading interventions. The majority of the projects involve the development or refinement of academic interventions to test theory related to academic skill development, and all projects have involved direct provision of academic interventions to students with academic difficulties in local schools. In addition to directly benefitting the academic skills of students participating in the interventions, these projects have provided intensive training in academic interventions for the graduate student researchers.

In addition to mentoring graduate students on evaluation of academic interventions, my primary research program is increasingly focused in this area. I am particularly interested in methods to incorporate vocabulary instruction effectively in the context of early, individualized reading interventions. Such interventions often primarily focus on the development of code-based skills, such as word decoding and reading fluency; however, contemporary reading theories emphasize that language-based skills such as vocabulary and background information also strongly contribute to reading comprehension. In addition to increasing these language-based skills, I believe that incorporating robust vocabulary instruction in early individual reading interventions could potentially improve reading comprehension by (a) providing opportunities to build students' morphological awareness that can

assist in word-reading skills and (b) more effectively engaging students in intervention due to the extended discussion that effective vocabulary instruction provides.

To support this line of research, I plan to resubmit (as Principal Investigator) a SSHRC Insight Grant in October to evaluate the added effects on reading comprehension of adding vocabulary instruction (a) to an existing, effective intervention targeting reading fluency and (b) to an existing, effective intervention targeting word decoding skills. If awarded the Professorship, I would use the associated funds in Year 1 for graduate student funding to support the development of prototypes of the vocabulary instructional components and pilot testing of the combined fluency + vocabulary and decoding + vocabulary interventions. In addition to providing student research opportunities through academic presentations and publications related to the pilot trials, this work would directly support my ability to obtain larger pools of grant funding to test differential effectiveness of the intervention in scaled-up trials. In Years 2 and 3 of the Professorship, I would use the funds similarly—the full \$12,000 per year would be allocated to hire graduate research assistants to contribute to the development and pilot testing of reading interventions.

- Work with school communities to develop programs that will effectively meet the needs of children with dyslexia and related learning disabilities.

By allocating the full \$12,000 per year to graduate research assistant funding to support research on reading interventions, the ‘collaboration with school communities’ portion of the mandate would also be supported. All of the MA and PhD theses on reading or writing interventions I have supervised have involved the provision of academic interventions, at no cost, to students in local schools. At the conclusion of the studies, we have presented the intervention procedures and findings to interested school staff and also shared intervention materials with the schools. The majority of interventions that we have evaluated can be implemented with materials that are either freely available or minimal cost. I also have an active collaboration with the HELPS Education Fund (<http://helpseducationfund.org/>), an educational non-profit organization located in the US that provides educators with free, research-supported educational materials and services and has ~30,000 registered users from 40 countries. I have a commitment from the director of the HELPS Education Fund to support (beyond costs covered by future grants) the development of implementation guides and training videos for the vocabulary instructional materials mentioned in the prior section, and these materials will be provided to users at no cost online.

- Adapt graduate courses and seminars to focus on the current state of research on dyslexia and related learning disabilities, support practicum placements that provide students with learning opportunities in the area of dyslexia and related learning disabilities.

In my 4 years at UBC, I have taught 7 sections of EPSE 531: Curriculum-Based Assessment and Intervention. During that time, the course has been required of all graduate students in School Psychology, a commonly taken elective for Special Education students in the Learning Disabilities and Behaviour Disorders concentration, and now is a required course for Special Education students in the Supporting Inclusive Education concentration. Course content is focused on screening and intervention planning for students with difficulties in reading, math, and written expression. Reading difficulties and dyslexia are emphasized in particular, and students are required to implement an academic intervention (the majority are in the area of reading) while incorporating CBM to evaluate the effectiveness of the intervention. I have also taught one section of EPSE 526: Seminar in Learning Disabilities, and hope to

teach more sections of this course in the future. Content in both courses is firmly grounded in contemporary research in learning disabilities and is informed by my research in CBM and academic interventions.

In addition to the practical intervention activities associated with EPSE 531, graduate students in my research lab receive extensive practical experience in implementing and evaluating academic interventions, primarily in the area of reading. In addition to conducting intervention work related to their own thesis projects, the majority of students in my lab serve as interventionists on my research projects as well as the other student thesis projects conducted in the lab.

Implementation and Evaluation Plan

As mentioned previously, if awarded the Professorship, I would use the \$12,000 per year to fund graduate research assistants to contribute to the development and pilot testing of reading interventions that will facilitate obtaining external funding for larger studies that scale up and test theoretical mechanisms of intervention effectiveness.

The impact of this funding would be assessed through the following:

1. Tracking the number of submitted and received grants (e.g., SSHRC Insight) in the area of reading interventions and assessment of written expression (WE-CBM).
2. Tracking the number of presentations and peer-reviewed publications related to the grant, as well as graduate student involvement in both.
3. Documenting the number of supervised MA and PhD theses related to reading and writing interventions, as well as my involvement as a committee member in theses on these topics.
4. Documentation of courses taught related to the mandate, as well as the number of students completing reading and writing interventions as part of course requirements.
5. Noting the number of community presentations related to dyslexia and other reading and writing disabilities.